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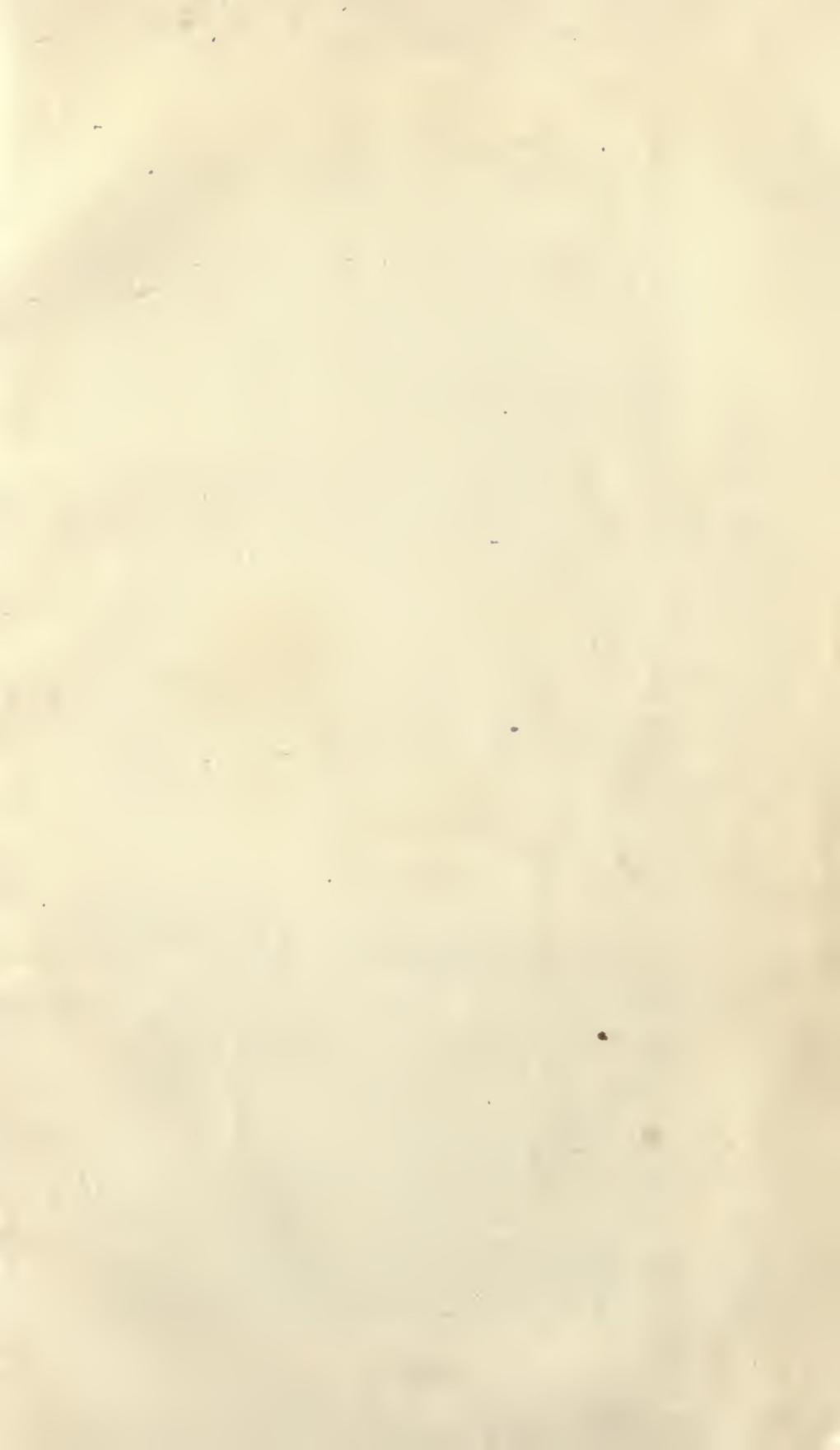


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South Hall, 1882.  
Central Hall, 1896.

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Superintendent's Home, 1870.  
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State Normal School Buildings.

# *State Normal Manual*

*...FOR...*

*Public School Teachers,*

*..BY..*

*WILBUR H. BENDER, Ph. B.*

*Supervisor*

*Advanced Training Department.*

*IOWA STATE NORMAL SCHOOL,*

*Cedar Falls, Iowa.*

12301

*STATE NORMAL SCHOOL BULLETIN,*

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*1901.*

*Sep't. 1903*

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**BY WILBUR H. BENDER.**

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## PREFACE. 12301

The subject matter of this Bulletin consists of lessons given in the Training Department by the Supervisor of the advanced grades. They are of a character to be practically helpful not only to students who are preparing for public school work, but also to teachers who are engaged in the active duties of the profession. The points covered are the ones found most likely to need attention by superintendents inspecting the management and class work of subordinate teachers. The results attained in our training school have been so decidedly marked by development of power and efficiency in instruction through the application of those methods, that these lessons have been put into more definite form by Supervisor Wilbur H. Bender, and the Normal School publishes them in this Bulletin, for the benefit of its students, present and prospective, as well as for such public schools as may desire the assistance in practical didactics that is thus obtainable. It is the intention of the Board of Trustees to present from time to time other studies on professional subjects as contributions to the great work of the public schools. It is the province of the Normal School to thus increase its usefulness not only to its students but to the State at large.

HOMER H. SEERLEY,

President.

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## PRINCIPLES AND PLANS.

### A General View.

#### 1.—PRINCIPLES AND PRACTICE.

The following directions and suggestions are given as a means of taking a general view of some of the most important elements entering into the teacher's work. They are expected to serve, within limitations to be sure, in a three-fold capacity. In the first place, it is intended that they shall serve as convenient directions for the guidance of the efforts of practicians in the training school. Secondly, they are to furnish a part of the means for making suggestive criticism of the work of the teacher in training. This criticism is intended to take the form of indications of errors, commendation of excellencies, and in pointing out where improvement is evident in the student's work. The third purpose of the collection is to group a body of the principles that belong with common practice in the schoolroom in a form convenient for reference in discussion in general teachers' meetings. Also progressive teachers may find convenient instruments here for self measurement. Superintendents and principals will find them convenient in putting on record the estimates of the work of teachers. The groups are not to be looked upon as standing in the order of their importance, neither is there any attempt to have the items in the various groups take rank of importance. The headings are arbitrary and it is readily seen that some that are put under a certain head might with equal, or sometimes with seeming better propriety, have been put with a different list, so closely do they shade into each other.

(A)

#### 2.—MOVING CLASSES.

1. Secure the attention of all by taking position before the class or by use of a word if necessary. See that all are prepared with books, tablets, pencils, or any other material that may be needed in the recitation period.

2. "Ready"—at this word *all* should turn for rising.
3. "Rise"—this means that *all* should rise and move to place of recitation.

Note.—Give proper time after each signal that all may understand and thus move systematically. Keep a steady voice and a calm exterior from the first even in these apparently small matters.

(B)

3.—CARE OF THE ROOM.

1. Accustom yourself to note carefully the condition of the floor, desks, and blackboard when you take charge of a room. If it is not in order put it in that condition by asking pupils to pick up from the floor and desks any paper, crayon, or other misplaced articles that may be found. Erase marks from the board, or have one or more pupils do so, before the recitation opens. Try to acquire the habit of *leaving* the room in good order.

2. Most class exercises require some use of material objects, maps, charts, or blackboard if the teaching is well done. Be sure to leave all these in good order when the time has expired.

3. Let each teacher see to it that pencil sharpenings and waste paper are not left on the desks or within them, as this is a fruitful source of untidiness in schoolrooms. Except in occasional cases of accident there should be no pencil sharpening during working time.

4. Pupils should learn to be helpful in caring for the room. The class leaving a room at the close of the day's work should raise seats and clear desk tops ready for sweeping and dusting.

(C)

4.—PLANNING AND ASSIGNING LESSONS.

1. Have a well defined plan for each lesson you try to present.
2. Study your class as a group and individual pupils as an aid in making plans.
3. Have the plan call up back work or past experiences as a starting point in the new lesson.

4. Be careful to have the plan show a good analysis of the lesson and the proper relation of points for the best teaching exercise.
5. Make provision for topical recitations by individual pupils.
6. Have oral and written summaries at various stages of the teaching process.
7. Plan definitely to have the proper comparisons and contrasts to keep the old ideas well reviewed and make lasting associations in the mind of the child.
8. Make provisions in your plan for having the pupils draw conclusions, state definitions, rules, and other general truths at the proper place.
9. Get your plans down to the actual condition of your teaching.
10. Do not hold so rigidly to the plan that you will not use illustrations and other devices that may occur to you in the recitation period simply because they are not in your plan.
11. Try to have all plans end in some definite results and have these results in the nature of applications and drills.
12. Study notes in this bulletin and references in other books on this topic.
13. Make careful preparation for the assignment of each lesson before attempting to assign it.
14. Be definite and clear in the assignment of work and speak quietly and so pointedly that few questions can be asked by pupils when you are supposed to have finished.
15. Take plenty of time for the assignment of lessons. Good assignments save time in the next recitation and for all time to come.
16. Notice that in classes using the text book the aim, most of the step of preparation and some of the guides to the pupils' study of the part that comes under presentation all appear at the time of assignment.
17. Know the author's plan and lead pupils to see relation of each part to the preceding work.

18. Look for units and have class see what is to be worked out next.

19. Make use of the table of contents and index and teach pupils to use these helps.

20. Call attention to pictures and other suggestions given for illustrating the statements of the book at the time of the assignment.

21. Be interested in the new lesson and try to interest the pupils in it.

22. Make definite and clear statement of "outside" work. Tell pupils just what they are to study from reference books and where they may find the books, frequently the pages to be consulted should be given.

(D)

5.—QUESTIONING.

1. Plan questions thoughtfully.
2. Have a good reason for the question each time.
3. Learn the three-fold purpose of questioning.
4. Study the class and individual pupils as a guide to good questioning.
5. Know the subject well and the relation of the parts.
6. Make a study of the subject of questioning but do not allow yourself to rely on questions that may be in the book or that you may have prepared previously, following them slavishly
7. Try to realize that this is a subject in which all teachers may improve.
8. In trying to improve it may be well to write out lists of questions but they should not be relied upon for the class room.
9. Put questions in simple language, make them direct, clear and as terse as age of class and nature of work will permit.
10. Ask questions that require thought on the part of the pupil.
11. Manage the questioning so that all must be attentive.
12. There should be a sensible time given for pupils to collect thought for answering before one is named to answer.
13. Do not waste time trying to "develop" facts evidently not in the mind of any member of the class.

14. Avoid relying upon answers to furnish the key word for the next question.
15. Put life and earnestness into your questions.
16. Show proper sympathy for the pupil in his efforts to answer but do not coach him until he thinks he has done the work when you have really done it for him.
17. Avoid over questioning. Ask as few questions as possible and still reach the points of the lesson.
18. Do not say, "tell me," when questioning the class. It is not an exercise conducted between teacher and an individual pupil but one in which every member of the class should be concerned.
19. Beware of questioning one pupil too long.
20. Avoid questioning the bright pupil too much.
21. Be ready to lay aside the text book in your questioning, but be sure to be accurate in your knowledge.
22. Give proper answers to all sensible and relevant questions of pupils.
23. Learn to select what is valuable in pupils' answers quickly and to give proper credit for all that is worthy when attempted in the right spirit.

(E.)

#### 6.—ILLUSTRATION.

1. Study children to learn how to illustrate.
2. Plan from the subject matter how to illustrate it.
3. Use simple and well-known circumstances and objects as means of illustration.
4. Do not allow yourself to be afraid to try to illustrate.
5. Ask for material that may be on hand for illustrative purposes.
6. Try to devise and secure illustrative matter and illustrations for yourself.
7. Make your illustrations clear, apt, brief.
8. Use illustration, explanation, and definition, but see the proper place of each.
9. Make all possible use of the blackboard so long as it is not abused and made the means of the waste of time.





*Up the River, From the Railway Bridge.*



*Down the River, From the Wagon Bridge.  
Views of Cedar River, at Cedar Falls.*

10. Have pupils do a great deal of illustrating.
11. Make illustrative maps, charts, outlines and models and lead pupils to do likewise.
12. Endeavor to be able to give variety to the exercises without the use of devices that are sensational rather than sensible.
13. When you find a good article in paper, magazine, or book, use it and leave a record stating where it may be found and for what it is valuable so that others may profit by your experience.

(F.)

#### 7.—MANAGEMENT.

1. Know what you intend to do.
2. Seat the reciting class in solid body.
3. Have desks put in order for the kind of work to be undertaken.
4. Be careful to have the whole class and school within range of vision.
5. Recognize and check inattention at once.
6. Strive to be able to meet the emergency when the unexpected happens.
7. Sometimes repeating a question is allowable. Try to see when this is true.
8. Exercise tact and good judgment in quieting and leading the "confused" pupil.
9. Be quick in seeing what to do next.
10. Hold yourself responsible for teaching pupils how to study.
11. Repeating answers of pupils is generally a waste of time. Do not form a habit of doing it.
12. Do not allow pupils to repeat the mistakes of others in making corrections.
13. Have mistakes fall upon the eye and ear of child just as little as possible.
14. Make an effort to have culminating points of interest in the recitation. Avoid the deadening effect of monotony in thought and action as well as in voice.

15. Aim to have as few words used by teacher and pupil as is consistent with vigorous thinking and good English.
16. Excuse the reciting pupil properly before giving question and naming another to answer.
17. Make constant effort to have the exercise call forth vigorous thinking by each child all the time.
18. Study to recognize the difference between dullness, laziness, and ignorance, and manage the child accordingly.
19. Treat innocent questions, brilliancy, and genuine impertinence as each would seem to merit when you recognize which it is.
20. Be able to think more rapidly and do better work than the pupil is expected to do.
21. Let the pupil's face give you evidence when the lesson is interesting or dull, and manage accordingly.
22. Be earnest to discover cause of pupil's failures and try to bring him up on his weak points.
23. Hold yourself responsible for the attention of each member of the class.
24. Make the work interesting enough to hold the attention of the majority of the class, and then plan for special means of reaching the most careless.
25. Vary the devices and the way in which you do things, but remember that learning is done in definite ways applicable to all natural minds.
26. Give directions quietly but *very* clearly so that little talking or asking questions on the part of the pupil may be necessary.
27. Have a reason for every thing you do, but constantly aim to attain that "teacher instinct" that directs into the right way without stopping to reason why. Remember that things do not appear alike to all minds in the class.
28. Do not waste time by having sentences, problems and the like read in teaching or application exercises when all members of the class have books open before them.

(G.)

## 8.—DISCIPLINE.

1. Try to understand why there should be good order in your room and class.
2. When disorder *begins* to show itself stop and get control of yourself and the class.
3. Give attention to the position of the pupils both in sitting and in standing to recite.
4. Say little, say it quietly and calmly, and *do* a great deal.
5. Hold yourself and class responsible for good order in the halls.
6. Have pupils assume the attitude of attention as one means of getting it.
7. Have attention and do not waste time in repeating directions because of inattention or your own previous poor statement.
8. By example and precept impress pupils that thinking should go before speaking.
9. Hold books properly, without turning covers back to back, and insist that pupils shall do the same.
10. Prevent unnecessary marking in books. Do not assign work by having class underline words or write in the books.
11. Try to prevent pupils from marking desks, partitions, or blackboards excepting when they are sent to the board to put work on it.
12. Make a study of the proper control of the pupil who talks too much.
13. Cultivate the habit of prompt response on the part of children.
14. Try to merit and hold the confidence and sympathy of your class.
15. Except in an occasional concert exercise see that pupils respond only when named by teacher.
16. Strive to have answers thoughtful, in good language, and pointed.
17. Encourage originality, but try to have pupils think whether the question or matter introduced is relevant before giving it to the class.

18. See that all written work is neat and in good form.
19. Be ready to laugh with class when something occurs that is worthy of it, but try to repress the disposition to laugh at trifles.
20. Do not be afraid to acknowledge a mistake to the class, but try to have the mistakes very few.
21. See pupils about their work when they have been absent or are not doing well in their lessons.
22. Give children all possible credit for right motives. Be thoughtful but not hasty to attribute evil intentions in acts done.
23. Be accurate, thoughtful and let your pupils see that you know more than just the matter in hand.
24. Be just, steady, and firm.
25. Observe the rights and feelings of pupils and think how these questions of discipline appear to them.
26. Give attention to proper seating as a means of securing required order and attention.
27. When the teacher is known to have studious habits it encourages the same in the pupils.
28. See every thing, but let some things pass forever, and others for the time, unnoticed.
29. Select fundamental evils for attack and do not let little matters lead you to become a complaining, nagging teacher.
30. Correct in private except where the control of the class is jeopardized by the delay.
31. Certainty of correction of one's misdeeds at some time is worth more than severity as a preventive.
32. Let the well-disposed pupils know privately that you appreciate their efforts and helpfulness.
33. Watch for opportunity to truthfully and frankly commend the positive efforts at right behavior that even the worst child puts forth at times.
34. Train the eye and ear to see and hear quickly, but always with the best judgment possible at command.
35. Exercise all the faith, hope and charity that is possible and still preserve right ideas of justice.
36. Be sincere and frank, but do not take or allow undue privileges in conversation or associations with pupils.

37. The manners and language of polite society are always in place in the school room, and the teacher should endeavor to give proper example of this, and then insist upon a like treatment from pupils for herself and for other pupils.

38. Neatness in dress and in work done will be helpful to class, and in most communities are now required as essentials in a teacher.

39. Use apt quotations whenever possible thus to reach more effectively and pleasantly simple faults of individuals or classes.

40. Keep in mind little things that many pupils do unconsciously, and when occasion demands a private interview kindly point out these things to the pupil, although he may not have noticed them himself, or may have thought them unnoticed or forgotten. Be ready to admit with the pupil that he probably did many of these things with no intention of evil, but kindly insist that they *do* interfere with the good of the school and eventually will lead him into undesirable habits.

(H.)

#### 9.—MANNER OF TEACHER.

1. Cultivate self-reliance by the exercise of will power and assume the manner suggestive of it.
2. Do not step about nervously and manifest meaningless activity.
3. Avoid the appearance of being annoyed.
4. Study to keep down the appearance of a nervous, nagging, worrying, and overly critical disposition.
5. Assume and maintain proper attitude before the class. Stand calmly and with dignity.
6. Let the face and manner indicate interest in class and subject.
7. Teach earnestly, energetically, and enthusiastically, but avoid, however, the "high-pressure" manner that wears out the teacher and wearies the class.
8. Cultivate the manner of doing things as though you believe in the dignity and worthiness of your occupation. Pupils appreciate vim.

9. If by nature slow in thinking, moving, and directing the work of the class, cultivate a manner of doing your work at what seems to you inordinate speed.

10. The voice should accord with the manner. Avoid the following uses of the voice: too high, too low, monotonous and expressionless, and the uncertain inflection that indicates want of decision.

11. Assume a dignity at all times that becomes a teacher, but study to overcome diffidence and to avoid the appearance of coldness and formality.

(I.)

#### 10.—SPIRIT.

1. Show sympathy for pupils, encourage and commend wisely.

2. Be willing to do more than just what would seem to be the legal requirements for good of the pupil or your school.

3. A spirit that views charitably with proper amount of good sense and without undue sentimentality removes much friction.

4. An interest in educational gatherings and local teachers' meetings is a mark of the proper spirit.

5. It is the duty of every teacher to have a desire to make the calling of teaching one of more worth and dignity in the eyes of the community.

6. True spirit inspires to look for high ideals.

7. The person with the right spirit finds much compensation in the personal growth that comes from the daily contact with children.

8. The proper spirit leads one to regard teaching as among the noblest of callings, and will not allow it to become drudgery.

9. Parents have interests and burdens that appeal sensibly to the teacher with the right view of her position.

10. Janitors and others about the building will have the hearty sympathy of the thoughtful teacher, and will be treated accordingly.

11. Appreciation of the honest, self-sacrificing member of the school board is an element in the right spirit of the teacher.

12. Instead of being annoyed by every caller the cheerful spirited person sets about getting something from every one with whom he comes in contact.

13. Patience in answering provoking missives, enduring complaints, &c., is not all in the hands of the teacher. Business and professional men and others have something of the kind to do also.

14. It is a good thing to be able to eliminate self and to deal with all questions officially for good of pupil, class, school, community.

15. The teacher of the right spirit is also a student of the child, not as a mystery to be feared or a thing to use experimentally, but as a fellow being to be respected, loved and led.

(J.)

### II.—OBSERVATION OF THE TEACHING OF OTHERS.

1. Assume the attitude of a learner and not that of a critic if you would get the most from observation.

2. Try to see why each move is made by the teacher and the pupil, but do not reach definite conclusions until you have seen the exercise completed.

3. Notice errors but do not allow them to monopolize your mind so fully that nothing else can find a place.

4. Try to see what steps are taken of the four suggested in the lesson plans.

5. Avoid the notion that school work to be good must be spectacular. An occasional exercise may be "showy," but such things long continued lead away from the more serious occupations of the school.

6. Take a broad and generous view of all that you see and do not condemn utterly all that at first sight may seem to be bad.

7. Observe the condition of the room, attitude of pupils and such other points as you find applicable from the suggestions given in the "general suggestions."

8. Notice the question of discipline and see where the management or instruction could have been made to aid in securing better results in that line.

9. Do not observe with a view to finding points that are valuable to you chiefly because they are about as bad as the things you do.

10. Make specific criticisms and do not allow them to escape you by trying to remember them without writing them out.

11. Systematize your suggestions from the observation lessons and be able to give good defense of the position you take.

(K.)

## 12.—MISCELLANEOUS.

1. Know the names of pupils as soon as possible. Use roll book and call the names until all are learned.

2. Keep record of tardiness in your roll book.

3. Written reviews come best when topics have been finished rather than by time periods. Do not form the habit of leaving things to be taken up in the review. The most helpful reviews are those that are taken in the way of preparing the mind of the pupil for each new lesson daily.

4. Mark mistakes on all written work returned to the class, but put no grades on papers handed to pupils. See that pupils do not pass in carelessly prepared papers.

5. Record your estimate of work of class about twice a week, but not during recitation period. Look over the class list at your room and determine the relative excellence of the work when not concerned with the thought of the individual class exercise. Report occasionally at the supervisor's office those doing very strong or very poor work.

6. Make a careful effort to have your pupils realize just where their knowledge leaves off and their ignorance begins.

7. Remember in all teaching that it is possible for the presentation to classes to be in opposition to the scientifically logical order of considering the topics. In other words, a proper recognition of the principle of "point of contact in teaching" very often violates the scientific order of classification. A subject treated in pedagogical order is not in consequence presented in its scientific order.

8. It is not the purpose of the training school to restrain, to discourage, or to crush personality. The effort will be made

to give all suggestions in the kindest spirit and it is hoped that what is done will be understood as suggestive rather than final.

9. In trying to make criticisms helpful the following points may be observed: Do not *worry* over them, but give them careful thought, trying to find the remedy that will most readily remove the evil. Do not ignore or forget the help that has been offered you. Ask questions about the work when you do not understand. Be "professionally inquisitive." Look for general principles that form the foundation of a sound practice instead of dissipating the energies upon individual difficulties.

10. By means of the brief statements of the preceding pages and through written remarks of their own, practitioners will file on the desk of the supervisor at the opening of each school week the criticism made upon their work of the past week by the critic teachers.

11. In making these notes the following signs will be used: The letter at the head of the list is first given, next the Arabic numeral of the particular principle in question under that topic, and this is to be followed by the Roman numeral I., II., III., or IV. The Roman "I." shall signify, "Not strong in this particular," "II." improving, "III." commendable, "IV." very strong. A record made in this way would appear somewhat as follows: "D., II, I," and would be read, "Management in questioning is not such as to require the attention of all." If it were reported, "D., II, III," the interpretation should be about like this: "Worthy of commendation for ability to secure and hold the attention of all to the questions asked." Thus in very few signs suggestions and criticisms and their transmission can readily be made. It is not assumed that every thing can be covered in this way, but enough can be done to reduce the writing very materially.

## II.

**The Lesson Plan.****13.—NECESSITY OF PLANNING.**

This is not a world of chance. All things are done in accordance with some preconceived theory or plan. No architect attempts to rear a building without previously considering the plans carefully. Any large business corporation must have some one to act as the head and make the plans that others then carry forward as mere instruments. The teacher is both head and instrument in the operations of the school room and must therefore make and execute plans wisely if best results are to follow. Aimless lesson hearing is not teaching. The good teacher now carefully looks over his material as embodied in subject matter and learner, and prepares to build thoughtfully the proper associations in the mind and life of the child instead of regarding his office fulfilled when he has tested what the pupil has done for himself in his efforts in the study period. No matter how often the subject is recanvassed the growing teacher will have something to do each time for his present attainments can not find suitable room in last year's plans. Sometimes the veteran might succeed without the special plan but he rarely assumes the risk. It is usually the novice, the very lazy person, or the exceedingly busy one that neglects to equip himself properly and relies on the inspiration of the moment. To prepare so well on the subject "that it will always be on tap," and then relying on the spontaneity of the class room for the rest is not enough. This is well, but not all, for it is not strongly evident that the most scholarly person is always the most successful teacher. Think, devise, grow.

The great function of the teacher is to adjust subject matter so that the learning mind can make the proper associations in the most economical manner, and then to call forth the necessary reactions to fasten these associations permanently into a new unity. Since the pupil is the intelligent, self-acting being for whom all schools exist, it is but sensible that he should be taken into the secret of the lesson and allowed to see the aim from his

standpoint, not the standpoint of the teacher. This suggests a clear statement of an aim or an end to be reached that is within the grasp of the class and that the members may carry in mind while they study or are making investigations for themselves. Old ideas and experiences must be in consciousness so that the new may find proper associative materials with which to unite. The new must be properly arranged to adjust itself to the condition of the mind of the learner most readily. The old and new require comparisons and abstractions to be made before they reach a final adjustment to each other. Generalizations are the next results to be attained. Lastly a full and repeated application or drill must be made that what has been presented may remain permanently and become a part of the mind's later working material. There is a best way for all these activities to be conducted in all cases, and in order that one may approach that best way he must think out his line of operation before hand. If this frightens the would-be teacher into the notion that thus she will become very formal and lose her originality, the reply may well be made that there are ten to one more failures in this world because of inability to forecast and plan properly than there are geniuses crippled by too rigid insistence upon their working at first according to some fixed and definite plan.

#### 14.—WHAT THE TEACHER MUST KNOW IN ORDER TO PLAN WELL.

1. The class as a unit in the grade of work to be done, the local environment ,and as much as possible of the home surroundings, attainments, and individuality of each member of the class.
2. The general movement of the mind in learning and the special activities due to varying age and the laws of teaching applicable to each stage.
3. He should know thoroughly the subject he is to teach. This he must grasp as to fact and also he should have a realizing sense of what it is to do in the developmentof the mind and life of the child.
4. He should have a knowledge of the use of devices in teaching in general and a sensible appreciation of the devices and

apparatus necessary for the presentation of the particular lesson at hand.

### 15.—THE LESSON UNIT.

The units made in most of the late text books are good, but the teacher must adapt them frequently to the conditions of the class. Chapter and topic headings should be recognized and then this matter should be marked off into portions that will make the class work effective and not destroy the continuity of the thought or introduce points not closely related into the same lesson. A complete unit generally covers more matter than can be presented in one recitation period. In fact, there are not many recitation periods when the full operation of the steps previously mentioned as the necessary movement of the mind in learning can be realized. The teacher in dividing the subject for presentation and in making plans should bear in mind the full teaching process and proceed each day accordingly until the unit is rounded out in the minds of the learners. The grade that is being taught or the time at command for the particular class will have much to do in determining how much can be done in the development of the unit and the recitation periods will be governed by this condition of class and school. Also it may be well for the teacher to recognize the fact that it depends very much on the skill of the teacher as to how many periods must be given to the topic in the class room. The plan should be made for "method wholes," or units of instruction, and the recitations then be governed by the conditions confronting class and teacher.

### 16.—THE PLAN-BOOK.

#### 1.—General Directions.

The subject and the teacher's name should appear on the cover of the book with the class and grade indicated. On the early pages of the book a brief indication of the units to be treated during the term is made for each month of the time the teacher is to hold the class. Following this are to be the plans for the "method wholes," or instruction units, as it is proposed to give them for the coming week. The recitation periods intended to be given to each unit will be indicated, showing what it is proposed to do in each period. The plan week is from Tues-

day until Tuesday. This makes it possible to use Saturday for some of the work and leave the book with the following week's plans in the office of the supervisor on Monday morning. Books are returned to practitioners on Tuesdays, after having been read by critic teacher. At top of page beginning a unit the dates on which the lessons are to be given should appear and also the pages of the text covered are to be indicated. Special teaching devices, objects and apparatus used in the class room will be mentioned in their proper places in that part of the recitation movement where they are to be used.

## 2.—Parts of the Plan.

### (a).—The Aim.

This should be stated to a class using the text book at the time of the assignment of the lesson, or when the unit of work is laid out. Sub-aims for each day are stated to call attention to the particular work of the day in question. They should be the aim or end to be attained by the pupil and are not to show what the exercise is to be, considered from the standpoint of the teacher. The statement of the aim suggests to the pupil a result to be reached, a problem to be wrought out, or an end to be attained through both his study and the recitation period. This statement should be made in language that is simple, definite, concrete and attractive to the pupil without telling in full but suggesting the line that the thought is to take. Since this is to be helpful to members of the class in their study it should have a brief statement of the related points that have been acquired in their past lessons or from experiences that are familiar. There should then be the forward view well stated. Sometimes one sentence may do and always the aim should be stated as briefly as the clearness and accuracy of the thought will permit. An aim is necessary for the best results and should not be overlooked.

### (b).—Introduction, or Preparation of the Pupil's Mind for the Advance Lesson.

This is shown on the plan under two heads standing over parallel columns, one termed "matter," the other "method." (For the meaning of this arrangement see guide plans that follow this

outline). In the "matter" column should appear all the ideas that are already in the learner's mind which the teacher thinks should be recalled vividly in order that the new may be comprehended and proper associations made. In the column of "method" should be given the topics, questions, or other devices that the instructor would deem sensible to use in arousing these ideas anew.

(c).—Discussion, or the Presentation of the New Points of the Lesson.

As in the introduction the points in the subject matter will be kept in column and the devices for teaching in parallel column. In this way the notes of the teacher will show what is to be taught and how it is proposed to proceed in the process.

(d).—Comparison, Abstraction, Generalization.—(Elaboration).

Comparisons between the old and new ideas and among the new ones should be shown and the method or devices used in making these. Contrasts of unlike features and clear conclusions as to where the points differ from each other are a necessary part of the plan here. In all subjects where it is possible the general truth in the way of a principle, a definition, or a rule should be determined and the pupils then led to see and state it for themselves. The plan of the teacher here will require as great care as in any part of the teaching process. To lead adroitly and tell little in drawing conclusions is a characteristic of the master teacher.

(e).—Application.

This is done by finding other individual cases that belong in the class that has been learned through the study. Finding individual truths that exemplify the conclusions reached. Determining the class of separate things by measuring them with the definition that has been developed. Solving problems by the rule just formulated. Drills. Arranging the old and new points in as many series as possible to make all the associations that can reasonably be found to hold the new matter sensibly in mind. Repeating the clearer ideas of the old as now seen in the light of the advanced work. Drawing and other handwork, such as relief forms, models, and the like should be used as a means of

applying what has been presented. Making outlines of the leading topics and subordinate points properly arranged is another form. In some branches, such as reading and language, committing is a part of this step that is appropriate very often.

Help in comprehending the purpose of the lesson plan and in recognizing the parts essential to its structure may be found in the following books, and especially on the pages or in the chapters named:

The Method of the Recitation, McMurray, pp. 98-109, and Chapters II. and XI.; School Management and School Methods, Baldwin, Chap. XVIII.; Philosophy of Teaching, Tompkins, pp. 29-35; Putnam's Manual of Pedagogics, pp. 187-190; Principles and Practice of Teaching and Class Management, Landon, pp. 52-76, especially 70-76; New Manual of Method. Garlick, pp. 48-57 and 77, also there is help on special lessons throughout the entire discussions of the process of teaching the various branches; Essentials of Method, DeGarmo, almost the entire book, but especially, Part III., pp. 97-136; Art of Study, Hinsdale.

#### 17.—ILLUSTRATIVE PLANS.

The following plans have been worked out as suggestions, and in no sense as models to be copied. They are based on method units and should not be understood as necessarily intended for one recitation period. The length of recitation period, the condition of class, and the skill of the teacher all combine to determine how much can be done in one period. The plans should be made for the entire unit and indications given as to how much of this the teacher thinks he can do each period. Often smaller units that can be covered in one period can be traced through the same steps that the larger units must have, and when this is possible it should be done in that way. When a comprehensive aim has been stated for a method unit requiring a number of days for full treatment there should be sub-aims given to the pupils so that they may see clearly each day what is to be accomplished.

In the "matter" column there is not much room for originality, as the subject imposes its own nature upon the teacher and

class. On the side of "method" the teacher has abundant opportunity to work out original questions, illustrations, and other devices that will lead the pupil's mind sensibly along the way the subject and mind combined require that it should go. Method proper, based as it is on the mind and the matter, is almost a constant thing; devices may vary, and should do so for different classes and localities. It is hoped these plans may aid not only in making plans, but in the higher function of execution in the exercises of the recitation hour. They should be regarded as illustrations of principles and not as devices to be copied.

To indicate in outline the steps in such a process as that of teaching results in more or less rigidity of relation of topics. All sensible teachers realize that the mind follows a certain order in learning. These orderly steps glide imperceptibly into each other, but in preparation for giving a lesson the teacher must recognize each in its proper place and make it as complete as possible before leading the pupil into the advance movement. At first one learns to do a thing through consciousness of what he is doing. In the beginning the teacher is conscious of the steps—the pupil need not be so—and gradually the former acquires power to do the right thing unconsciously, which is the thing desired to be reached by this planning.

### I.—READING LESSON.

#### THE SANDPIPER.—A POEM BY CELIA THAXTER.

**AIM:**—IN A FORMER LESSON WE LEARNED OF AN ISLAND Lighthouse ALONG THE ATLANTIC COAST AND THE LIFE OF A LITTLE GIRL THERE. IN THIS POEM WE SHALL BE ALLOWED TO SEE ONE OF HER FEATHERED PLAYMATES OF THOSE DAYS AND TO LEARN IN WHAT PARTICULAR THING SHE DECIDED SHE AND THE BIRD WERE ALIKE.

##### MATTER.

###### A.—Preparation.

White and Appledore Islands.

1. Location.
2. The little girl and her family.
3. How they came to be there.
4. How the children spent their time.
5. The sandpiper.

##### METHOD.

###### A. Preparation.

1. Locate these islands on the map and by pointing toward them.
2. Who was this little girl and how many children in the family? 3. What was her father's business on

(a). Size. (b). How it lives. (c). Common birds somewhat like it.

the islands? 4. Tell how the children amused themselves. 5. (a). Show the class how large you think the sandpiper to be. (b). Where does it live and what is its food likely to be? (c). Name some common birds that you think are like it.

#### B.—Presentation.

##### I. Characters in the poem.

Little girl. Sandpiper. The Providence that cares for all.

##### STANZAS.

###### I. On the beach.

1. Who and what.
2. Occupation.
3. Wind and waves.

###### II. The weather.

1. Clouds.
2. Lighthouses.
3. Vessels.

###### III. The Sandpiper.

1. His cry.
2. His courage.
3. Cause of his confidence.

###### IV. The night storm.

1. Question.
2. The little girl's condition.

#### C.—Comparison, generalization.— (Elaboration.)

1. Picture made in the first stanza.
2. Feeling aroused in the reader.
3. New parts for mental picture from second stanza.
4. Things mentioned.
5. Feeling of one there alone.

#### B.—Presentation.

I. Name the living beings mentioned in the poem—seen and unseen.

##### STANZAS.

###### I. Where are they?

1. Who and what is mentioned?
2. What are they doing?
3. What kind of winds and waves?

###### II. What is the condition of the weather?

1. What kind of clouds?
2. How do the lighthouses seem?
3. What are the vessels doing?

###### III. What is the most important thing the author talks about in this stanza?

1. What does the little girl notice of his acts? 2. What shows his courage? 3. Why is he so courageous?

###### IV. What is coming?

1. What question does the little girl ask? 2. What does she say as to her own condition?

#### C.—Comparison, generalization.— (Elaboration.)

1. What things appear in the picture made by the first stanza?
2. What feelings does this picture arouse in you? 3. In what parts of the picture do the new things mentioned come? 4. What things are added? 5. How would one feel

6. The calmness and confidence of the sandpiper. (Third stanza.)

(Stanza four.)

7. Shelter for the bird.  
8. Drift-wood fire and protection for the little girl.  
9. Change in feeling.

10. FEELING ONE'S LONELINESS AND HELPLESSNESS LEADS HIM TO REJOICE IN THE ASSURANCE OF PROTECTION.

11. Lonely beach, wild waves, wild winds, tide runs high, sullen clouds, scud black and swift, silent ghosts, misty shrouds, close-reefed vessels fly, mournful cry, fitful song, storm breaks furiously, yroth the tempest rushes.

12. He starts not, has no thought of any wrong, fearlessly, stanch friends, comrade, my drift-wood fire will burn bright, "I do not fear for the \* \* \* \* \* For are we not God's children both, Thou, little sandpiper, and I?"

13. THERE IS A POWER THAT CARES FOR ALL.

D.—Application.

"Not a sparrow falleth \* \* \*"  
"God tempers the wind \* \* \* \*."  
"Take no thought what ye \* \* \*."

Reading of entire poem, by parts, by topics, by stanzas in order. Outline as given in other parts of plan. Build series of ideas:—we fit, I gather, waves reach, winds

if out there alone and surrounded as these two stanzas show?

6. In the third stanza what things is the sandpiper said to do? How do you explain his fearlessness with the weather so threatening? How would the little girl feel without his presence?

7. What does the writer make us feel will happen to the bird?

8. How did the little girl feel as to her own safety?

9. How do her feelings seem now as compared with the feeling at the close of the second stanza?

10. Why does the author create this lonely and helpless feeling in one and then arouse the more hopeful one of confidence in a protector?

11. Make a list of expressions found in the poem that have a tendency to create the feeling of loneliness and fear.

12. Another throughout the poem showing the brighter side of fearlessness and rejoicing in hope of protection.

In which part of poem are most of each found?

13. What statement can you make that applies this thought of protection to all of us at all times?

D.—Application.

Give quotations from scripture and other sources that will show the same thought as conclusion reached in poem. Poem was read under presentation to develop ideas there outlined, but it should now be re-read thoughtfully in class. Make series of ideas using subjects and verbs. Make outlines

rave, tide runs, &c. Bryant's poem, "To a Waterfowl." Pictures that deepen the impression.

of entire thought. Read parts at least of, "To a Waterfowl." Show pictures that will clear up ideas. Commit last stanza.

## 2.—GEOGRAPHY LESSON.

### THE GREAT BASIN.

(Complete Geography—Frye, Page 33.)

**AIM:**—WE HAVE FOUND THAT HEAT, WIND, AND RAINFALL ARE THE IMPORTANT ELEMENTS IN MAKING A PRODUCTIVE COUNTRY, AND HOW THE REGION WEST OF THE SIERRA NEVADA AND CASCADE MOUNTAINS IS FAVORED BY THESE. IN THE STUDY OF THE GREAT BASIN WE SHALL FIND WHAT PRODUCTIVE CONDITIONS IT HAS AND WHY THEY ARE SO.

#### MATTER.

##### A.—Preparation.

- I. Climatic belts.
  1. Heat.
  2. Wind and rainfall.
  3. Change in location of each.

##### II. Sierra Nevada Mountains.

1. Location.
2. Heat, winds and rainfall on the western side of these.

##### B.—Presentation.

###### The Great Basin.

1. Location.
2. Surface.
  - (a). Elevation.
  - (b). Ridges and valleys.
  - (c). Depressions.
3. Rainfall.
  - (a). Amount.

#### METHOD.

##### A.—Preparation.

- I. Name the chief elements in making climate. 1, 2, 3,. From map locate heat, wind and rain belts in western United States and show the changes in location for the year.

- II. 1. Locate the Sierra Nevada Mountains on the map and by pointing toward them. 2. State conditions of heat, winds and rainfall on their western slope with reasons for the conditions found.

##### B.—Presentation.

1. Locate the Great Basin:—On the continent, in heat belts, in wind belts, and by mountain boundaries. Point it out on the relief map of North America. Point in the direction it is from us.
2. (a). What is its elevation?  
(b). Where are the ridges and valleys? (c). Where noted depressions? (Blackboard sketch by teacher to be followed on paper by pupils).
3. (a). Tell what you can of the peculiarities of the rainfall.

(b). Number and size of rivers and lakes and condition of water in them.

4. Soil.

5. Products.

(a). Vegetation or plant life.  
(Irrigation.)

(b). Mineral.

6. Population.

(a). Density in general.  
(b). Cities.

(b). What can you say of the number, size and condition of the water of the rivers and lakes? How do you account for this condition of the water? What especially noted lake in this basin? (Display pictures in text and such others of the region as can be obtained).

4. What is the nature of the soil and what is the chief reason for its unproductiveness?

5. (a). What is the general condition of this region as to plant life? What special effort made in places to get plant products? (Show pictures of irrigation ditches. A brief discussion of this topic by a pupil who has made special preparation for it.)

(b). What mineral products are secured and where are they procured? (Display specimens if possible to obtain them.)

6. (a). What is the general condition as to density of population?

(b). What is the chief industry on which the life of the cities and villages is based? Name the city of note found in this basin and explain why it is here. (Pictures again.)

C.—Comparison, contrasts, and Generalizations. (Elaboration.)

I. Conditions west of the Sierras. Winds—moist most of year. Heat—modified by ocean.

Mountains on the east—condense, store, and send back moisture in streams. Rivers—constant, fresh water, flow into lakes or other bodies of water. Lakes—constant in size, fresh water. Soil—fertile in valleys, much land that produces without irrigation. Some regions irrigated. Vegetation—gen-

C.—Comparison, contrasts, and Generalizations. (Elaboration.)

I. Conditions west of the Sierras.

Make a statement of these under the following heads and set in comparison or contrast with them the same conditions in the Great Basin: Winds, heat, mountains, rainfall, rivers, lakes, soil, vegetation products, population, cities.

erally abundant. Products—vegetable and mineral, but plant life quite luxuriant. Population—comparatively dense. Cities—many cities of prominence.

## II. In the Great Basin.

Winds—dry. Heat—intense because of radiation from dry land. Mountains on the west—cut off most of the winds and rob such as pass over from the west of the greater part of their moisture. Rainfall—very light. Rivers—vary much in size at different seasons, lose themselves in the sand generally. Lakes—vary in size in different seasons, water salt. Soil—sterile from lack of moisture. Practically all needs irrigation. Vegetation—very sparse. Products—chiefly mineral, excepting where irrigation is in operation. Population—sparse, mostly in villages in mining regions. Cities—just one prominent city.

## III. Conclusions or Generalizations.

1. THE REGION WEST OF THE SIERRA NEVADA MOUNTAINS IS MUCH BETTER ADAPTED TO THE SUPPORT OF A LARGE POPULATION THAN THE GREAT BASIN REGION.

2. THE GREAT BASIN REGION GIVES LITTLE PROMISE OF EVER BEING ABLE TO SUPPORT A LARGE CIVILIZED POPULATION. WHAT PEOPLE LIVE THERE MUST GET THEIR PRODUCTS FROM MINES AND THROUGH FARMING BY IRRIGATION. THE GREAT WANT OF THE BASIN IS MOISTURE.

3. WHEN EITHER HEAT OR MOISTURE IS DEFICIENT IN A

## III. Conclusions or Generalizations.

1. What can you say of the country west of the Sierras as a home for civilized communities?

2. State conclusion you would make as to the desirability of the Great Basin as a home for man and how those who do live there must get their support.

3. Deprive a region of either heat or moisture and what is true

PARTICULAR REGION IT IS NOT WELL ADAPTED TO THE NEEDS OF CIVILIZED MAN.

D.—Application.

Map of region. Relief moulded in sand or paper pulp. Other regions with almost similar conditions.

1. East of the Rocky Mountains.
2. Sahara desert, &c.

Topical outline of points as made under "presentation."

"The Great Basin lies in the western part of North America, in the path of the westerlies, in great part, and is surrounded by the Columbia Plateau, Wasatch and Sierra Nevada mountains. Surface elevated and rough with many north and south ranges of unweathered ridges. Death valley is a noted depression. Moisture bearing winds from the west are shut out by the mountains, making light rainfall. Summers hot. Water in rivers and lakes salty. Soil is not productive, excepting by irrigation, and few plants grow there. Some mineral products in the hills. Population very light. Salt Lake City near Great Salt Lake is the greatest and most widely known city in the basin. The western slope of the Sierras is much more productive than this region.

Stories.

### 3.—UNITED STATES HISTORY.

#### PLYMOUTH COLONY.

(Montgomery's Leading Facts of American History.—Page 76.)

AIM:—SO FAR IN OUR STUDY WE HAVE FOUND THE ENGLISH ATTEMPTS AT SETTLEMENT IN AMERICA TO HAVE BEEN IN THE SOUTH, AND THAT THE LEADING CAUSE WAS A DESIRE TO GET GOLD OR OTHER FORMS OF WEALTH WITH WHICH TO RETURN TO LIVE IN ENGLAND. ALSO WE HAVE

as to its favorableness for the life of civilized people?

D.—Application.

Draw map from memory, on paper, on the board. Build your ideas of the relief of the region with paper pulp. Name other sections with somewhat similar conditions, in our own country, in other countries. Make a topical outline of the points we discussed about the Great Basin during this recitation. Write in brief, connected statements the facts we have learned about this section of country. Teacher or pupils tell stories of difficulties of travelers and early settlers in the basin.

SEEN THAT INDUSTRIAL CONDITIONS AT HOME ENCOURAGED THIS MOVEMENT TO AMERICA. IN THE STUDY OF THIS COLONY WE SHALL FIND STILL OTHER CONDITIONS AT HOME AND OTHER MOTIVES OF THE COLONISTS IN COMING TO THIS COUNTRY, AND SHALL TRY TO SEE WHAT RESULTED FROM THEIR EFFORTS.

## MATTER.

## A.—Preparation.

## I. Raleigh's attempts.

1. Where. Roanoke Is., N. C.
2. When. 1584-7.
3. Who came. Wealth seekers.
4. Why. Desire for wealth.
5. What resulted from their efforts?

## II. Settlement of Virginia.

## R. 1. Where. Jamestown, James

## 2. When 1607.

## 3. Who came. Mostly as before.

## 4. Why. Commercial enterprise.

## 5. Results of their settlement.

## (a). Permanent settlement.

## (b). Resort for members of church of England and Cavaliers.

## (c). Establishment of tobacco industry.

## (d). First attempts at representative government in America.

## (e). Introduction of slavery.

## (f). Growth of ideas of self government from Bacon's rebellion.

## METHOD.

## A.—Preparation.

## I. Who was Raleigh and what motives led him to try to send out settlers?

## 1. Where were the attempts at settlement made? (Show on map and point toward the region.)

## 2. When was this? What was occurring in Europe that hindered these efforts?

## 3. What class of people came? How many different companies?

## 4. What was their motive in coming? 5. Name all the results, good or evil, that came from these efforts.

## II. Settlement of Virginia.

## 1. Show where this settlement was made. Map. Point. 2. When?

## 3. What classes came? 4. What was the leading motive in their coming? 5. Name all the results of importance that you can.

## B.—Presentation.

## Plymouth Colony.

## I. Conditions in England:

1. Legal requirements concerning the Church of England.
2. Classes objecting to this law. (a). Catholics. (b). Puritans. (c). Separatists.
3. Emigration.

## II. Separatists or Pilgrims.

1. While yet in Europe.
  - (a). In Holland.
  - (b). Concluding to come to America and reasons for it.
    - (1). Loss of nationality of their children if they stayed.
    - (2). Aversion toward the language and customs in Holland.
    - (3). Desire to found colony on English soil where their views of government and religion might prevail.
  - (c). Determine upon Hudson river region.
  - (d). Poverty.
  - (e). Assistance.
    - (1). From English merchants.
    - (2). Terms very exacting.
2. Sailing and settling.
  - (a). Where. From Plymouth, England to Plymouth Rock, (Cape Cod Bay), Mass.
  - (b). When—Autumn of year 1620.
  - (c). Who came—About ninety Pilgrims with a few servants and a few others that joined them

(d). Why—(Find this under concluding to come to America and reasons for it.)

## 3. Events and results.

- (a). The Mayflower compact.
- (b). First houses, first governor, and first winter.

## B.—Presentation.

## Plymouth Colony.

- I. 1. What law in regard to the established church was in force in England? 2. What classes objected? 3. To what did this law and the objections lead? Where did they go?

## II. State the views and experiences that make these terms applicable to these people.

1. (a). When in Europe where did they make their home? (b). What did they finally decide to do and what were their reasons?
  - (c). Where did they expect to go? Why not go to Virginia Colony?
  - (d). What stood in the way of their going? (e). Who gave them the necessary help and on what terms?
  2. Name ship that came and tell of experiences in getting started.
    - (a). Show on map the place of starting and of landing. Teacher sketch map on board and pupils draw on paper, showing region of landing.
    - (b). Give year and season of their coming. (c). Give your idea of the classes and character of people that came. (d). State again their reasons for coming.
    3. (a). What are the terms of the Mayflower compact and why was it made?
      - (b). Discuss topically: first houses, first governor, first winter.

(c). - Men and measures.

- (1). New governor.
- (2). Military leader.
- (3). The town-meeting.
- (4). Indian treaties and troubles.
- (5). Purchasing their freedom from the English merchants.
- (6). Slow growth.
- (7). Spirit made them great.

C.—Comparisons, contrasts, and Generalizations. (Elaboration.)

#### I. Raleigh's attempts.

Place—Island south Atlantic coast. Climate—Moderate. Leader in the movement—Raleigh. Conditions in England—Industrial stagnation. Character of colonists—Not strong, mostly adventurers. Motives—Gold seeking and to return to England. Results—Failure excepting as it paved the way for more successful efforts later.

#### II. Virginia Colony.

1. Inland on James river—south. 2. Moderate. 3. London Company. 4. Industrial stagnation and idle discharged soldiers. 5. Most of them dissolute and unwilling to work. 6. For adventure and seeking gold with which to return to England. 7. Established plantation life. For other results see same topic for this colony in "preparation."

#### III. Plymouth Colony.

1. In the north, on the coast but on mainland. 2. Rigorous and severe climate. 3. The colonists themselves with means secured by

(c). (1). Tell all you can of the new governor. (2). Who is the military leader and what are his qualifications for the place? (3). Look up and discuss very fully, "the town-meeting." (4). What treaties were made with the Indians and the results of these? (5). How did the colonists get free from the English merchants? (6). What was the growth of the colony and how do you account for it? (7). Give the things that in your estimation make the Pilgrims great.

C.—Comparisons, contrasts, and Generalizations. (Elaboration.)

#### I. Raleigh's attempts.

Put the colonies studied in the preparation and the presentation into comparison or contrast under the following heads: 1. Place. 2. Climate. 3. Leaders in the colonizing movement. 4. Conditions in England. 5. Character of colonists. 6. Motives leading them to come. 7. Most important results.

#### II. Virginia Colony.

#### III. Plymouth Colony.

practically selling their efforts for seven years. 4. Religious disturbances and dissatisfied sects. 5. Stern, sturdy, upright, God-fearing, energetic, patient—toiling. 6. To make permanent homes and remain. Also see reasons given in the presentation. 7. Started excellent ideas in government in the Mayflower compact and the town-meeting system they used. Opened the way for others who followed rapidly a few years later. Gave to the world examples of strong earnest manhood. Spirit manifested in overcoming their difficulties gave inspiration to all times since.

**IV.** Prominent characters in the colonies. White, Smith, Dale, Delaware. Berkeley, Bacon, Carver, Bradford, Standish.

**V. Conclusions.**

**1. RALEIGH'S EFFORTS ARE COMMENDABLE IN THE IMPULSE THAT THEY GAVE TO THE COLONIZATION IDEA.**

**2. THE VIRGINIA EFFORT RESULTED IN PERMANENCY OF THE COLONIZATION THEORY, IN OVERCOMING THE TENDENCY TO DESERT THE COLONY AND THUS MADE THE FIRST PERMANENT SETTLEMENT.**

**3. THE PLYMOUTH COLONY GOES A STEP IN ADVANCE IN SHOWING DETERMINATION BEFOREHAND TO OVERCOME ADVERSE CIRCUMSTANCES AND MAKE HOMES. THE STRUGGLE WITH THE RIGOROUS CLIMATE OF THE NORTH AND THE RESULTS OF THEIR**

**IV.** Name, compare, contrast, and tell what you admire most in the prominent men in these colonies.

**V. Conclusions.**

**1. What conclusion do you draw as to the benefits of Raleigh's efforts?**

**2. Show how the Virginia Colony resulted in superior value to that of the Raleigh attempts.**

**3. What did the Plymouth Colony accomplish that neither of the others had done?**

**4. Give a quotation that is general that may be said to be exemplified by the efforts of these various colonists.**

EFFORTS LEAVE LASTING INSPIRATION FOR ALL TIME.

4. General—"THERE IS NO EXCELLENCE WITHOUT GREAT LABOR."

#### D.—Application.

Maps. Groups of items.—Illustration. Time: 1584-7, 1607, 1620. Important names: White, Smith, Berkeley, Bacon, Carver, Bradford, Standish. Religious convictions. Church of England, Separatists. Motives: Gold, wealth and return to England to live, life for a principle and homes in America. Systems of gov't—. Of industry—Literature. Apt thoughts— "Where there is a will there is a way." "God helps those who help themselves." Others may be given.

#### D.—Application.

Make maps of the several localities studied. Make groups of items associating ideas in different ways and letting each group suggest all the others it can. Have full topical outline made and recitations from it. Read and have read as much as time will allow: The Landing of the Pilgrims, The Pilgrim Fathers, &c. Apt thoughts illustrated by the colonists.

Summary by connected statement—See geography plan for illustration.

### 4.—ARITHMETIC LESSON. ONE OF THE METRIC TABLES.

(Lesson given orally, but to a class that has some knowledge of the common tables in denominate numbers, especially measure of length for short distances.)

AIM:—ALL OF US KNOW HOW MANY MILLS IN A CENT, CENTS IN A DIME, UNITS IN A TEN, TENS IN A HUNDRED, &c., AND HOW EASY IT IS TO LEARN AND REMEMBER SUCH TABLES. IN OUR PREVIOUS LESSON WE NOTICED HOW IRREGULAR OUR COMMON MEASURES FOR MEASURING WIDTH AND LENGTH OF BOOKS, DESKS, ROOMS, THICKNESS OF TABLETS, BOOKS, LENGTH OF BLACKBOARD, OF CARPETS, &c., ARE, AND ALSO WE LEARNED THE LENGTH AND NAME OF A NEW MEASURE, BUT FOUND IT TOO LONG TO MEASURE SMALL THINGS. TO-DAY WE SHALL SEE WHAT SMALLER MEASURES MAKE UP THIS LARGE ONE, AND HOW MANY OF EACH OF THE SMALLER MEASURES ARE REQUIRED TO MAKE ONE OF THE NEXT HIGHER.

#### MATTER.

##### A.—Preparation.

1. Common table for short measurements.

#### METHOD.

##### A.—Preparation.

1. Give the table of common measures, inches, feet, &c., used in

- 8-8 in. make 1 inch.
- 12 inches make 1 foot.
- 3 feet make 1 yard.
- 2. United States Money.
- 10 mills make 1 cent.
- 10 cents make 1 dime.
- 10 dimes make 1 dollar.
- 3. Common Numbers.
- 10 units make 1 ten.
- 10 tens make 1 hundred.
- 10 hundreds make 1 thousand.
- 4. The meter reviewed.

B.—Presentation.

See last statement in the aim.

I. The meter.

1. Divide the meter into tenths.

- 2: The decimeter.

measuring length, width, or thickness of things. 2. Who can give the table of United States money? 3. Build up a similar table in our common numbers beginning with units. Which of these tables do you think easiest to learn and to use? 4. Give the name of the new measure we had in the last lesson. Make a line on the board as long as that measure. Hold your hands just as far apart as the length of that measure. Close your eyes and think a distance as long as the meter. Find the meter stick from this bunch by looking at its length.

B.—Presentation.

What is it that we said we are to find out to-day?

- I. Since this stick is too long to measure small things how may we get measures for them?

1. In thinking of the tables that we have just had and the ones that you thought were easiest to remember and use, what would you suggest as a good way to make smaller measures from this one?

2. Who knows the name of this tenth part of the meter? (If no one knows, which is quite probable, the teacher will give it pronouncing it carefully and writing it on the board.) You may pronounce the name of this new measure. All may take pencil and write it being very careful to spell it exactly right. Take these decimeter rulers and measure pencils, books, &c., with them. (Rulers made from tops of crayon boxes.) Hold thumb and middle finger a decimeter apart. Hold hands a decimeter apart. Draw lines a decimeter long.

Close your eyes and think the length of the decimeter. Measure the thickness of your tablets, books, of the side of a crayon box and the like. (They discover that this measure is too large for this use.) Proceed with the centimeter and millimeter as was done with the decimeter.

## II. Build the metric table.

1. Worked down by tenths go back by tens.

10 millimeters make 1 centimeter.  
10 centimeters make 1 decimeter.  
10 decimeters make 1 meter.

1. Since each smaller measure is one-tenth of the larger how many of the smaller in each case shall we take to make one of the larger?

Who is ready to start the table of new measures we have learned, beginning with the millimeter? (It is given orally by different members of the class contributing parts and the teacher may write it on the board, spelling out each word in full.) You may look at the table on the board and think the length of each measure and notice carefully just how each word is spelled. (Teacher erases from board.) You may now write the table, but be sure that you do not try to write a word that you can not spell correctly. (Any word that a pupil says he can not spell should be put on the board for him to copy. Care here will save much trouble later.

C.—Comparison, contrasts, and Generalization. (Elaboration.)

1. Tables given in the preparatory step recalled. The new one kept in mind.

C.—Comparison, contrasts, and Generalization. (Elaboration.)

1. Which table of those we had at the beginning of this lesson is like the new one in purpose? How do they differ? How are the other tables and the new one alike? In what are they different from the new one? In what are they different from the first one? In what are the like each other? How do they differ?

**2. Generalizations.**

(a). WE FIND THAT WE CAN MEASURE LENGTH WITH MEASURES THAT INCREASE AND DECREASE BY TENS JUST AS OUR COMMON NUMBERS INCREASE AND DECREASE OR AS MONEY IS MEASURED.

(b). SINCE OUR COMMON NUMBERS INCREASE AND DECREASE BY TENS OR ARE MEASURED BY TENS IT WOULD BE EASIER IF WE COULD HAVE ALL OUR TABLES GO BY TENS AS WE HAVE FOUND IT IS DONE IN MONEY MEASURE AND HAVE NOW SEEN IN MEASURES OF LENGTH.

**D.—Application.**

## Measurements.

Draw units to build up table.

**Problems—**

How many:

Decimeters in 3, 8, 21, 5, 32, 11.

6, 9 meters?

Centimeters in 7, 3, 25, 18, 10, 16, 24, 15, 13, 2, 4, 9 decimeters?

Millimeters in 8, 3, 5, 2, 12, 17, 21, 16, 31, 18 centimeters?

Centimeters in 20, 80, 40, 60, 30, 70, 120, 220, 330 millimeters?

Decimeters in 100, 50, 30, 130, 40, 90 centimeters?

Meters in 40, 70, 150, 80, 160, 120, 50, 90 decimeters?

Metric table.

**2. Generalizations.**

(a). What have we found that we can do with the new measures?

(b). Since the common numbers are measured by tens, money by tens, and we have found now that length may be so measured. what might be thought would be the thing to do in measuring other things?

**D.—Application.**

Measure the top of your desk, the top of table, its height, width of aisle, height of members of class, length of arms, &c., with the meter or use other measure when the meter is too large.

Draw ten millimeters in column on your paper and at the right put the equality sign and then draw a line to show what the ten millimeters equal. Make the entire table in that way using the blackboard when you need it for the long lines.

Solve these problems reading the results at sight and trying to think the length of each unit named as you give it.

(At first it is well to make the drills on very simple combinations. Later problems may have fractional results.)

Give table just learned.

## III.

**Assignment of Lessons.**

## 18.—IMPORTANCE.

If it is important that the teacher should have a plan in mind while he teaches, it is equally necessary that the pupil should have the way that he is to follow in his study hour clearly marked out for him. The assignment of the lesson is the process by which the maturer mind of the teacher lays the guide lines that the child is to observe in his effort at mastering the task set before him. No marks to guide or uncertain and indefinite ones are fruitful causes of wasted study time, and this leads to the acquiring of pernicious mental habits and a line of conduct that is very detrimental to the best interests of the school. Good assignments go a long way toward insuring good study periods, and the latter of course insure a wide awake recitation, which is simply another way of saying that the school is a success. A teacher who assigns work well generally teaches well, and this insures little trouble in discipline.

## 19.—THE TEACHER'S PREPARATION.

He must make a careful determination of the facts and experiences of the past that should be clearly in the consciousness of the pupil while he studies. No study is successful that concerns itself entirely with the new points that are under consideration. Before assigning the lesson the teacher must decide what matter the pupil should recall and have in mind while he studies. It is no small matter to be able to suggest wisely the back work that should be in view at the time of the preparation of the advance. Often the gathering up of the points made in the recitation about to close is an excellent preparatory step to the assignment, or a sharp, rapid review of lessons farther back may supply the needed material. In some lessons the needed related ideas are found in the home and in other experiences of the pupil entirely outside the school. Another element in the teacher's preparation for good assignment of work is a clear view of the essential points found in the advance topics. To recognize accurately just what there is new in the

matter under consideration for the study period requires close investigation on the part of the teacher. In order that the child may study to advantage the new must be suggested to him as something that he is to discover in his investigation while at his study. Poor studying is done because hasty and indefinite assignments are made by teachers who have not looked up the points that should have been vividly held before an interested class.

#### 20.—ATTITUDE OF THE CLASS.

If inattention is ever allowable it certainly is not to be countenanced at the time that work for the next day is being marked out. Texts and tablets should be in hand so that every suggestion may be secured for the advantage of the study hour. After the portion has been put before the class so that it may readily be reproduced as to the points that are for study, one or more members of the class should be required to restate the matter to be covered, and to suggest just what the class and he should intend to work out. Contrary to the current idea that this careful mapping out of the line of travel for the pupil in his study will kill his interest in the lesson, the opposite is found to be the result when he sees clearly that there is something in every lesson for him.

Pupils should feel that every idea that is suggested as necessary review must be in mind while the lesson is under contemplation in the assignment as well as while they are studying. They should give attention to the suggestions as to the materials that are to be used in the preparation of the topics, and likewise to the things that may be named as necessary to bring to the recitation when it is called the next day. References that are to be looked up should be clearly mentioned by the teacher and very closely noted by the pupil. Ignored references are worse than no references for any class. Generally, book and page of the reference should be given to the inexperienced student.

#### 21.—WAYS OF MAKING, WHEN, TIME TAKEN.

Probably most of the time the pages of the text may be taken consecutively. This depends upon the subject and the arrangement of the book. Often the work may be laid out by

the topics found in the text, but not on pages that follow in order. Selections from the index sometimes make the best arrangement of the lesson points. Frequently with older pupils the text may be laid aside and work given from other texts and reference books by topics entirely. In general, the best time for the assignment for such pupils as are found in the public schools is at the close of the recitation period. The result of the recitation may not always be such that an assignment made at the opening of the period will be the one best adapted to the class for next day's study. As to the amount of time that should be surrendered to this exercise there can be no absolute rule given. It is reasonable to suggest that in the ordinary school far too often the time given is much under what it should be. In a recitation period of thirty minutes, five minutes would not seem an over amount of time to give to a matter so important as the assignment. Sometimes more than that may wisely be given.

## 22.—STUDY PERIOD, TEACHER'S MANNER.

It would probably result in much better work if pupils could have the study program so arranged that they could study the following lesson just after the close of the assignment. This might be possible for those needing such an advantage most which would seem to be in the middle grades of the public schools. Careful preparation on the part of the teacher is necessary in order that the proper amount of enthusiasm and earnestness may be put into this part of the work through a revived and quickened interest due to a fresh study of the subject. In closing, a quotation is given from White's School Management, page 169, because the thought has value in even more directions than that of the special topic under discussion. "The principal spoke in a conversational tone, but with great animation; and both he and his pupils were aglow with earnestness. In twenty-five minutes the lesson closed, and some five minutes were devoted to the careful assignment of the next lesson, which the pupils noted with evident care."

## DEVICES IN TEACHING.

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### I.

#### The Text-Book.

##### 23.—ITS PLACE.

At first thought it may seem to some that the text-book is not one of the devices used in teaching, but that it is, instead, a very great part of the material of the objective world carried into the school room to be liquified there and poured into the minds of unsuspecting learners as so much mental food for the day. Such a view of the text-book is probably common in some regions even at the present time, but it should be forever banished from the attention of thinking teachers. These books are but the record of the ideas made concrete in the objective world about us, or the symbolizing in words and other forms the products of the thinking and imaginative faculties of literary and scientific men. They only put into conventional symbols in condensed form for convenient handling the certain small portions of the universe of truth that have been examined and thought suitable for the proper nourishment of the youthful mind. It is not the book that is to be studied, but the thing about which the book is written. Consequently the book is simply a device, and while an important one it should nevertheless be recognized at its proper value and given a place where it is thus found to belong. *The text-book is a very essential device.*

##### 24.—THE GOOD TEXT-BOOK.

1. For grade work at least, it is true to the instincts and experiences of childhood rather than rigidly logical. It seeks the interests and experiences of the learner as its starting point rather than the logical formula of scientific classification. The logical presentation of the government of the United States is from its beginnings down to the customs of the present in the election of president and the like. The child, however, sees our government as it is revealed to him through local institutions, elections, and presidential campaigns. To him the beginnings of things are the parts he experiences. The sensible text-book

and its user take advantage of this fact and reach the mind along lines of least resistance, which is always good policy in school work as well as in the field of electrical engineering.

2. In each advancing step the matter is based upon what has been done in previous study, and new difficulties are presented singly and in suggestive relation to what has gone before. On each page of the book, even in advanced grades, there is little that is distinctively new. Some new things appear, but there is such a readjusting of the old that much that seems at first sight to be new is simply an old friend in new garb. If the book can be used at all this must be true. That is the best text-book that makes this transition from old to new clearly but gradually.

3. General principles, rules, or definitions are reached through a process of sensible inductions as much as possible, and these generalizations are used as types, illustrations, or as new individual facts for broader inductions or generalizations. When these principles, rules, or definitions are developed they are stated in clear, simple language for the use of pupils, rather than leaving it to the unsystematic statements made by pupils themselves. These principles are the class descriptions from which by a process of deduction new individuals of the class are recognized when seen.

4. In the opening of each new section that may have a definite relation to matter covered by the book on earlier pages there are convenient references to these topics as a review to be used as an introduction to the themes about to be discussed. These references are very helpful in keeping the work properly unified. Quite in keeping with the thought suggested in the preceding sentences is the practice noticed in some of the most recent texts in the use of a part of a page before each main section to state briefly but clearly what it is that is proposed to be worked out in the section. This gives the teacher and class a view of the author's aim at a time when it appeals most directly to them.

5. A good text-book is clearly divided into chapters, or sections of similar importance, with topics and sub-topics prop-

erly lettered and numbered that the learner may readily find his way with reasonable assurance that he has the proper co-ordination and sub-ordination of points assigned him for study.

6. At the close of the discussion of a general topic good texts are now making a summary or giving a recapitulation of salient points for use of pupil and instructor as drills or devices for fixing in the mind that which is most essential to the success of later work. These may be said to be summarized recapitulations of the daily work, thus giving a unity to the thought that otherwise would be lost.

7. In subjects that admit of it there should be illustrations by means of pictures or cuts. These should be selected because of their value as illustrations of the thought intended to be conveyed and not merely to satisfy an unthinking demand as in some popular magazines or to make the book attractive for the idle moments of the child.

8. A sensible preface is by no means a valueless part of the text. In this part the author should be able to set forth his purpose in writing, suggest the strong points of the book as he sees them, and give a general survey of the field that he has attempted to cover. Closely related to this are the suggestions to teachers that may well be made by the author at the opening of the discussion, and as notes where they will be specially helpful in the body of the book.

9. A well balanced table of contents is an essential of a first-class text-book. Within this there should be a list of maps or illustrations. And of somewhat the same nature and even more essential in many respects is the index at the end of the volume. This is to be exhaustive and compactly arranged. It makes the book doubly valuable as a tool. In most books the pronunciation of the important words given in the index would be a very helpful feature.

10. Good text-books give references showing where help may be found for supplementary work.

#### 25.—IN THE HANDS OF THE TEACHER.

1. A tool. To the teacher it holds a double place. It is a tool and in great measure it must suggest the matter that is to

be used as the means of developing the child. It presents a two-fold problem to the one who would be the master in all respects of what he attempts to do. Although itself a device, it still, in its arrangement and treatment of the subject matter, becomes a study in method and device, or a work of practical pedagogy. To use it well this side of its nature as well as the subject matter should be fully grasped. It must be mastered as to plan, scope, and divisions, and why each is what it is before its full value is reached by the teacher and class alike. The ever recurring questions, "Why this matter that is in the book? How does it connect with what pupils already know? Why divided into the parts that we find here? Why the arrangement of topics that is made?" Or another list of questions may be asked, "What is the purpose of the table of contents? For what are the topical outlines and summaries at the close of the discussion? Of what practical use is the index?" These are a few of the questions that suggest themselves for the investigation of the thoughtful teacher. "It is probable that every teacher will carefully study the movement through from the first chapter to the last before beginning the use of the book in the class-room." This quotation is taken from a text that has appeared recently and it shows the attitude that the authors think the teacher should take toward the book before attempting its use, and this is true of all text-books.

2. Teacher's mastery. With the hurried teacher, as almost every one is destined to be a great part of the time, this mastery of the text is no small matter. And in such cases the pedagogical aspect at least is sure to be overlooked and in far too many cases even the grasp of the subject matter is not such as to make the teaching inspiring. There are four or five points of suggestion that may be made to one desiring to get command of the book in both its phases most readily. A study of the preface is almost an essential, not for pupils but for teachers. The table of contents should be mastered that the teacher may get a view of the entire field. This may be accomplished by use of the analysis of the contents generally found in the opening pages of the book, supplemented by a use of the body of the book, examining the pages that are given to certain divisions. Comparing the num-

ber of pages taken up by different topics is a good way to get an idea of the relative treatment of the various parts of the subject.

The suggestions to teachers merit the closest attention. These are found on early pages and scattered as notes throughout the text. They generally contain the very essence of the best that could be written to help a teacher with the very point in question. To the thinking teacher they will be what the name implies, "suggestions." They will not lose all their force on the subject to which they may be attached, but they will be carried over into other years and to other fields of teaching. Try to see what principles are present that make these suggestions useful.

The teacher who uses an index well will be able to master the book more readily himself, but in that very mastery he will become a leader directing the attention of the pupil to that ever necessary aid to accurate scholarship and ready use of books and libraries.

#### 26.—ILLUSTRATIONS AND SUMMARIES.

A closer study of the illustrations that are made in the text is one of the best sources of a teacher's inspiration. These illustrations may be in the form of pictures, cuts, stories, or examples. They furnish a starting point from which the original teacher will extend his range until all experiences, readings, and objects supply a growing stock of illustrations that is always ready and fresh. A careful investigation of the materials shown in a summary and a thoughtful determination of the purposes of such a summary will lead one to become a more systematic teacher. He should habitually lead pupils to gather up in condensed classification the products of the study and recitation. To become a master of grouping facts and principles is a long step toward success in practical life, and the pupil should have the benefit of it in his school training.

#### 27.—SOME MISTAKES IN USE OF TEXT-BOOKS.

1. Lack of discrimination between fundamental points and accidental qualities belonging to the thing discussed.

2. Too close confinement to the text on ordinary matters and not enough supplementary references. Also in the want of illustration from the pupil's experiences and outside life.

3. Slavishly following the order of topics in the book without adjusting them to the variable conditions that various classes and localities impose.

4. Neglecting certain points and telling pupils that those topics are of no consequence simply because the teacher is too indolent to get a good understanding of them, as is often done with such points as the metric system in arithmetic, climatic causes in geography, and even the important dates in history.

5. Not having pupils to learn definitely, facts, definitions, and principles after they have been properly presented through illustration and example.

6. Neglecting to show pupils how to use the book to best advantage.

## II.

### Questioning.

#### 28.—ITS PLACE.

Of the multitude of devices that have been invented for arousing, instructing, stimulating, and probing the learning mind that of questioning stands easily in the front rank. Its general use leads the more readily into the notion that it is an instrument of easy manipulation. No greater error can find lodgment in the mind of any teacher, and especially in that of one who has not served years in the actual operations of the school room. In the acquisition of this art, books may be read with great profit, as they may teach the fundamental principles that must be in the view of every successful questioner. They can not, however, give the delicate balancing of forces that is the product of the peculiarities of the subject, the personality of the child and the general good sense of the teacher. Nothing short of the most painstaking practice in formulating questions, deciding why each is proposed, and in watching the effectiveness of each in reaching the end for which it is given can give one skill in this most difficult of class-room exercises.

#### 29.—TEACHER'S COMPREHENSION.

He must realize his office as an instrument in the education of the child. The education of the individual is the product of

the action and reaction that have taken place between his soul and mind and the matter and forces outside himself. In a very great degree the teacher is merely the adjuster of the mind of the pupil to the matter and conditions that surround it. He is a mediator, a stimulator, an illustrator, an invigorator. It is very evident that no person can perform the part of a good teacher without a full grasp of the subject, for how can he see what that subject is to do in the education of the child until he sees what the subject itself contains? Likewise, how can he ask stimulating, logical, sensible questions without knowing the relations that various parts of the matter bear to each other? He might be able to take the text book of days now gone and ask the questions printed conveniently at the bottom of the page, but he could not be anything more than a mechanical articulator of the ideas of another. Such work is not above that of the photograph, which would have in its favor the idea that it was doing just what it pretends in the fact that it does not purport to do more than mechanically to repeat, as an echo, what had been given it to utter. The teacher must know his subject matter. He must arrange logically the points to be taught. He must then determine the best means for bringing this matter within the grasp of the learning mind. Some questioning will be necessary without a doubt, a knowledge of the subject is but one side of the knowledge to be possessed. A knowledge of the mind in general, and especially of the mental condition of the grade taught and as much as possible of the individual pupils, is an absolute requirement of the person who would become an expert in using devices to fulfill the office of a helpful teacher.

### 30.—SOME MEANS OF IMPROVEMENT.

1. A realizing sense of the need of more ability in this particular as in many others probably. Here as elsewhere ignorance is bliss—for the teacher—but expensive for the pupil. Until one becomes conscious of the need of improvement in any particular he will never make any advancement in that line.
2. Careful study of the lesson to be taught with full analysis of the matter into the leading heads with the proper sub-

titles. These should be seen in full in their past connection and as to the end toward which they look.

3. After the points of the lesson are fully determined the idea of devices that are appropriate for the presentation of each point to the minds of the various members of the class must be considered. What topics and questions will best introduce? In the matter to be presented what questions can the teacher ask that will lead the pupil to see the thing he should see? The stage of the work, the environment of the class, relation of divisions of the subject matter to each other all combine to make the questioning an individual case that can not be appropriately reached, excepting in the general way, by the study of lessons on questioning. The reader should sit down, and, having the points to be made and the class well in mind, he should endeavor to see what are the questions most likely to be effective in starting the required mental action in the pupils. If time in any degree permits there should be a written list of questions prepared, not for use in the class-room, but as a means of starting the mind of the teacher in the line of proper questioning when he comes into the presence of his class. Questioning is an art in which skill is acquired as in other arts by constant, thoughtful practice. Writing out lists of questions that are then left at home, more than doubles the opportunity, for the writing is more impressive than the oral questioning before the class.

4. The first suggestion to come to the student teacher when about to make a study of the questions for a particular class exercise of the nature indicated by one or more of the following questions, should be, "Why should the pupil know the thing that I have in mind to teach him here?" "Why do I ask him the question?" "Is any question needed?" "Could this point be made clearer by the use of some other device rather than the question I propose asking?" "Are the questions I am making comprehensive enough or am I making them too simple to stimulate the minds?" "Do I have too many questions?" "Are they made for the bright pupil, for the average pupil or for the dull one?" "Am I fixing up a formal set of answers in my mind to which the answers of the pupils must conform in order that their efforts

may meet approval?" "Is it probable that some of the members of the class will be able to give correct answers to these questions more readily than I can do it myself?" "Are all of these questions relevant and to the point?" "What questions are the pupils likely to ask that I have not prepared to meet by my preparation of this list?" "Would my class have a puzzled expression on their faces at the proposal of any particular one of this list of questions?" "Whose fault is it likely to be, in the questioner, or in the members of the class on the point of proper preparation of the lesson?"

### 31.—PURPOSES.

1. Finding the pupil's mental condition preparatory to discussing with him the subject matter of the lesson. A great part of this may well be done at the time of the assignment of the lesson, so that he may have the advantage of a better comprehension of his own condition while he studies. Also it is not possible to give proper directions for study until the condition of the pupil's mind is ascertained. This preliminary questioning will be repeated as a part of the introduction at the opening of the next recitation period, not in exact form of course, but in sense and with additional exercises.

2. That the thought may be properly led out and obscurities made clear during the pupils' discussion of the lesson. Starting questions and guiding questions are in place in this division of the recitation period. They should be logical in arrangement and applied only at opportune moments if they are to reach the desired end, however.

3. A final fixing and associating operation should take place at the end of the time for discussion, and much of this can most economically be done through the use of sharp, sensible questions delivered in a wide-awake, inspiring tone. Pupils should be held accountable for getting something each period, and they also have the right to have such a test applied that they may know for themselves whether the time has resulted in any positive advance.

### 32.—GOOD QUESTIONS.

1. Simple in language and easily within the grasp of the person that is to answer it. The thought of the answer and not the analysis of the question to get at its meaning should engage the attention of the pupil.

2. A directness that admits of no doubt as to the object toward which the mind should be pointed in trying to answer the question. Ambiguous and uncertain questions are accountable for much of the apparently careless answering that is prevalent in all grades of schools from the primary to the university. They should at least be clear enough to make it possible for the student to make a very intelligent guess, and thus get some training in the scientific process of arriving at new truth, if nothing more.

3. The wording of the question should be such that it requires thought from the learner in his attempt to answer. In general the following are not good questions: Such as may be answered by yes or no. (Such a question when followed by a demand for a reason for the answer is sometimes admissible, but it should be avoided lest it lead the young teacher into an undesirable habit.) Elliptical questions that require but one word to be supplied to make the statement of the answer. Another that teaches what a good question is by illustrating the opposite is the one that ends with the ever recurring, "Is it not?" Good questions seldom are of the nature to suggest an alternative. Neither do they ask for a repetition of the thought of the answer just given, or at least rarely should this be so. Verbosity is another fault still to be found in the questioning of some teachers, such as "Samuel, I wish you to tell us what the effect of multiplying both dividend and divisor by the same number may be." The mincing, choppy question that leaves the subject matter in the mind of the learner in the most disjointed manner possible is too frequently heard in what is otherwise many a good recitation period.

### 33.—MANAGEMENT IN QUESTIONING.

1. Naming the pupil before giving the question. This excuses all members of the class except the one named from any

responsibility or part in this particular item of the lesson. All pupils should be responsible for the answer to each question.

2. Looking at class in a way that members soon learn by the manner of the teacher to whom the question is to be directed.

3. Passing in a certain order along a line or around the class in naming the one expected to respond. Even with the best that can be done pupils will be trying to divine the next step and be ready for it without giving proper thought to what is the duty of the present moment. This leads directly to the next thought.

4. Much harm is done by the idea that pupils must answer all questions instantly after the last word is spoken by the teacher. This practice is the cause of very hasty and superficial thinking, or rather guessing, with no thinking before attempting the answer on the part of the pupil in far too many cases.

5. The fatal "developing" question is a fruitful source of waste of time. There is as much sense in seining in a dry mill-pond for herring as there is in searching in some minds by a process of questioning for historical and other facts too evidently not at home there. Not all teaching can be done by the Socratic question pure and simple.

.6. Allowing each question to grow out of the previous answer is a sure way to become a wandering teacher and develop a wondering or a listless class. A route marked out and an end to be reached is the only safe method of procedure.

7. Too much questioning makes a talking teacher and leaves the class with nothing tangible with which the various bits of knowledge may associate themselves, and surely does little to improve the fiber of the mind. And with the same exercise comes that of keeping at one pupil too long. In the ordinary teaching exercise all members of the class should feel the force of the questions by frequent invitations to contribute to the answer side of the account.

### 34.—THE MANNER OF THE TEACHER.

1. Vivacity. The teacher who thinks and puts questions in a way that bespeaks a live, active mind, is always at a premium with the class. The slow questioner is sure to have a listless and

unthinking class. Questions are a great means of keeping the minds of pupils active, but how can this be done by a teacher whose very manner suggests sluggishness, even to the verge of laziness? When pupils can think ahead and have the answer ready before the question has taken full shape in the mind and words of the instructor the exercise has little in it of value, for education is founded on inspiration through leadership. Avoid the drawling tone, the hesitating inflection in the question. Teaching is based on life. It is life to teacher and learner when done aright. Proper grading and sensible wording of the question is but half the task, it must have a strong force of animation in the teacher to wing it so that it reaches and stimulates the mind of the pupil to effective answering. High tones and erratic gestures are not indicative of vivacity, and they should be avoided here as in all other teaching exercises, but to reach their mark effectively the questions must be tipped with the fire of a living spirit. *Make your questions live.*

2. Ardor. There is such a thing as a lively manner that is not suggestive of a great amount of earnestness. The eye and countenance of the questioner should glow with an expression of intensity of purpose that will kill all thought of idleness and inattention on the part of the pupils. Ardor and a manner in questioning that portray the full, earnest soul will smother disorder and stimulate to activity when all artificial means of rewards or punishment have failed. Putting questions to inattentive members of the class is of little consequence until those questions come from one who puts so much force into them that the manner of the questioner and not the fact of being rescued from his dreaminess starts a new stream of life in the learner. *Be in dead earnest when you question.*

3. Sympathy. To get best results from questioning there must be a feeling or sympathy for the pupil. Not a sentimental expression of feeling that may or may not exist, but a genuine appreciation of the difficulties of childhood and the peculiar perplexities of the subject in hand. The cold questioner who does his work as if for hire alone can expect little in the way of responsiveness on the part of his class. The attitude of an exam-

iner as if conducting the exercise for the civil service commission is entirely out of place in the teacher. Far too often is the questioning of the teacher done with a cold, indifferent manner that represses rather than inspires. All pupils, and especially the timid, are in need of sympathy on the part of the teacher, and in no other way is this more effectively shown than in the tones, gestures, facial expressions, and attitude of the leader of the class in his questioning. Vivacity, ardor, and sympathy are not incompatible, but are the elements of a balanced manner. The first and second save the last from degenerating into a foolish sentimentality, and this last prevents the others from running riot with the judgment and making a task-master where there should be a helpful friend. *Temper all questioning with a generous sympathy devoid of undue sentiment.*

### 35.—QUESTIONS AND ANSWERS OF PUPILS.

I. Their questions. These readily drop into about three classes.

(a). There is the irrelevant, childish question that is the product of the desire to get attention and to satisfy the selfish propensities by hearing one's self talk. Such questioning on the part of pupils needs checking at once, as it has no educational value and is a training in the wrong direction entirely. Be ready with a question to meet the useless question of the talking pupil.

(b). The question deliberately planned to set the teacher to talking along some line of special hobby, or to get him to do the reciting. Look within for the cause of this and be on guard over your own talking propensities to see that the purpose of the class in bringing up the question is thwarted.

(c). There is likewise the proper question for the pupil to ask, and it should have polite treatment at all times, although there are some of these, even, that are asked out of season. When in proper place they should receive the attention they merit at once in the way of an answer. If they are not in the right place they may be laid aside for the time until the exercise has progressed so far that they may be profitably taken up. Honest questions should be recognized and should receive treatment in accordance with their merit.

2. Answers. In a manner similar to the questions of pupils these may be put into three classes.

(a). Wholly unacceptable. In this category are several common types. (1). Those entirely wrong. (2). Wrong through haste and thoughtlessness. (3). Careless and rambling. (4). Not in line with the question. (5). Couched in slang or other forms of slovenly language. (6). Dishonest.

(b). Acceptable through sifting. (1). Honest but only partly right. (2). Thoughtful but in language that needs attention. (3). Showing some comprehension of the question but lacking in full grasp of it. (4). Honest effort but giving evidence that the question was entirely misinterpreted.

(c). Wholly acceptable. (1). Honest, thoughtful, in good language, and correct.

To discern quickly the value of an answer and give it the proper kind of recognition gives evidence of a mastery of the art of questioning, for to know good answers at a moment's notice is the outgrowth of a full understanding of the effect of questioning.

Consult Landon's Art of Questioning; Fitch's Art of Questioning; and School Management, Tompkins; for a more extended discussion of this topic.

### III.

## The Illustration.

### 36.—VALUE OF.

It is probably not too strong language to say that suggestion plays a more prominent part in the education of the individual than direct observation does. In fact, observation pure and simple without suggestion of the imaginative faculty is hardly possible to the wide awake mind. "So it is always found that the true effects of eloquence are where the expression suggests a region of thought, a dim vista of imagery, or an oceanic depth of feeling, beyond what is actually contained in the sentences."—Bishop Huntington. It is in this realm of imagery, this field of likeness and unlikeness, that the teacher must find his greatest inspiration and help. This disposition of the mind to

see things other than they are because of the intrusion of imaginative elements must be controlled by a sensible and rich accumulation of ideas of real things from personal contact with them by the learner. Strong observational power and the active imagination should be made to supplement each other in the class room.

The mechanical teacher is painfully prosy and oppressive to his class. In the main the explanation for this prosiness and dullness is due to the very few points of contact that he has been able to discover between the matter he is trying to teach and the experiences and imaginative activities of his pupils. No greater power can come to a teacher than that of seeing almost instinctively the need of an apt illustration and possessing the information and courage to use such illustrations even though they must seem to be drawn from simple and homely themes. Holmes has said that a dull speaker and a lively listener reminded him of a crow with a kingbird after him, and about the same is the predicament of a teacher that is slow in illustration. If the teacher is devoid of skill in this part of his training he should at least allow the pupil to make himself understood through his tendency to illustrate his own thought. From these pupils he may then get a clue to his needs and improve himself in this very necessary art.

### 37.—KEY TO ATTENTION.

The happy use of illustrations is the key to the difficulty of holding the attention of pupils. Help and suggestions as to importance of the study of this aid to good teaching can be found in all books and chapters in educational literature where the question under discussion is that of securing and holding attention. The live teacher is always on the alert for such helps. The mind is able to see just so much in a subject as it brings to that subject in interpretative materials, and this makes it imperative that the instructor should be constantly accumulating a rich fund of materials to use in suggesting to the class the ideas that will make clear the hazy and abstract. Sources of illustrations are ever at hand. Occupations, seasons, weather, plants, animals, newspapers, books, magazines, and all other avenues of mental life are teeming with useful material for him who has the time





EMMA L. EVANS,  
Woodward, Iowa.

CLASS 1893.

*State Normal Graduates as Teachers in the Philippines.*



MAY E. POLLEY,  
Grand Junction, Colo.  
CLASS 1892.

and disposition to make it come to his bidding. The school studies through the principal of correlation may be made to help each other. Geography throws a flood of light upon history and literature, and these in turn give life and meaning to the facts of geography.

### 38.—WHAT IT IS.

"An illustration is something already known, or easily apprehended through the senses, which is made use of to assist the mind in its effort to comprehend something which is unknown." Joseph Landon. In general the illustration presents nothing new in itself, but aims rather to make the new thoughts clear by arousing in the mind old ideas similar to the new ideas to be presented. Likeness is the teacher's key and while it must be shown often in the form of word pictures, real pictures, and the use of objects themselves not altogether similar, it still unbolts the door that shuts the new from the inner life of the learner. In the broadest sense all teaching is picturing and illustrating. One teacher makes a subject glow with interest and seem to live again in the pupils, while another seems to repress and deaden all interest, and the real source of the difficulty is in the difference in picturing power. Fortunately this is not a realm that is left open only to the select few, but one that all thinking people may in a degree possess. We learn to illustrate by illustrating, we learn to picture before the pupil's mind by picturing before our own minds, and we learn to image by imaging. "At the heart of even the boldest of such instances of picture-work, there lies a true and universal principle. And we may be sure that we are more likely to err on the side of stiffness and conventionality (which is often sheer laziness and ignorance), than on the side of reality and life."—Walter L. Hervey.

### HOW THINGS ARE MADE CLEAR.

There are three ways of making clear most points that come up in the teaching of ordinary subjects. (1). Explanation. (2). Illustration. (3). Definition. As an illustration of these the following are given: The statement may be made to a child that most things are porous, but he does not understand the word, "porous," and it must be made clear to him. The explanation

would be made by substituting language that is simpler for the child and thus more readily understood by him for the word that is troubling him, i. e., porous masses have holes in them. Illustration would make the matter clear to him by exhibiting substances that have the quality in question quite well marked in their structure, and he would thus see for himself the meaning of the word. Definition would do as follows, as the definition from a late dictionary shows: porous, "having pores; pervious because of pores." In this case as in most cases it is seen that a process of illustration is probably the best method for making the desired impression on the mind of the learner. An explanation presents a particular thing as exemplifying the general quality mentioned, or it places a well known particular for one not so well known, and that is needing clearing up in the mind of the learner. Definition is the most difficult and would generally come as a summary of the ideas gained through explanation and illustration.

#### 40.—QUALITIES OF ILLUSTRATIONS.

1. **Clearness.** A cloudy illustration is worse than none at all. It must always be clearer than the truth it was intended to illustrate or it should not be used.

2. **Aptness, or truth.** An individual that does not possess the qualities that belong to the general class for which it is supposed to stand is not apt or true as an illustration. Neither is the individual that is not a near counterpart of the other individual for which it is presented well adapted for this purpose.

3. **Brevity.** This is a quality that should by all means be kept in view. Some very good teachers and preachers in most other respects forget this, and cover up the thought with their illustrations, or the pupil or listener forgets what was under consideration before the point in the illustration is reached.

4. **Familiarity.** In fact, a thing is not an illustration unless it is familiar to the person for whose mind it was prepared. The whole foundation principle of the process is the old illuminating the new.

5. **Quaintness.** The freshness of a thing gives it power as an illuminator. Old things seen in new lights are always in de-

mand. To put forth an old truth in new setting is in the line of the highest of originality. Quaintness is much to be desired so long as it is restrained from running over the border line into the realm of oddities and peculiarities.

6. Beauty. The mind not only delights in the beauty of the illustration because of the new truth that it thus has secured, but there is a subtle influence going out from the matter used that leaves a refined taste and a whetted appetite for that which has the element of grace and delicacy in it. Coarse illustrations are out of place in the school room.

7. In general. The whole world of imagery should be explored for its richest gems of light reflecting likenesses. All illustration finds its full power in the discovery of "likes"—this is like that and so forth. What thing that is familiar to my pupils is this new truth like? It is true that those illustrations that spring full robed from the inspirations of the moment in the class-room are the best, but they will not spring in that way unless cultivated in the off duty moments and made possible by a systematic effort in observation and reading.

#### 41.—HOW TEACHERS MAY IMPROVE IN THIS POWER.

(In that valuable monograph, *The Art of Securing Attention*, by J. G. Fitch, we find several pages given to the subject of illustration. One section is of so much value right here that while it is not quoted in exact words it is given so nearly in the form of the book that acknowledgement is made of the source from which the thoughts of the following topic are taken.)

Endeavor to remember carefully things seen and to describe them afterwards. Practice more in the art of telling a story. When a circumstance has been read or met sit down and try to reproduce it in one's own language. By watching carefully the metaphors and illustrations that impress his own mind and then carefully storing them in memory with a view to using them in class as opportunity may offer. In preparing to give a lesson studying all the details and surrounding circumstances until he can realize the pictures himself and feels his power to reproduce them for the class, or better, sees how he may lead the pupil to

form similar pictures for himself. By trying to see how to make graphic illustrations of things that may be pictured to the eye. By always keeping in mind the necessity of rendering one's teaching more vivid and constantly keeping on the alert for material with which to reach that purpose.

#### 42.—DEVICES USED IN ILLUSTRATING.

In that excellent little work, How to Secure and Retain Attention, (Every teacher should read it), by James L. Hughes, there is a list of devices given, and it is repeated here in brief form to give a general view of the means at command for purposes of illustration.

I. Those illustrations that appeal to the imagination through the eye. (1). Blackboard. (a). Diagrammatic. (b). Pictorial. (2). Picture, map, and chart. (3) Model. (4). Object. (5). Experiments. (6). Dramatic.

II. Those that appeal directly to the imagination.

Stories, incidents, personal experiences, descriptions of noble deeds and the like.

#### 43.—THE BLACKBOARD.

1. The modern school room is generally supplied with blackboard and in the houses of latest construction there is provision for a reasonably good supply and of a fair quality at least. Exploitation of problems and grammatical diagrams on the board by pupils is about all the use that is made of it in many schools. This is by no means all the use that *should* be made of it, and possibly it may be allowable to suggest that there are even more important uses to which it may be put than the one mentioned. Teacher and pupil should use it both in pictorial and diagrammatic illustrating.

2. A few quotations suggesting the use of the blackboard and the importance of having pupils do something for themselves in following the teacher are given below.

The wise teacher uses the blackboard almost constantly.  
\* \* \* \* The board, the slate and the paper are important educational aids and should be fully utilized. \* \* \* \* After a subject is mastered in detail it is reviewed in outline. \* \* \* \* We begin with particulars and work up to diagrams.—Baldwin.

The use of the hands is the only certain way of compelling pupils to attend to their work. \* \* \* \* In all blackboard illustrating done by the teacher, the pupil should follow on slate or paper, and usually part by part after the teacher.—Hughes.

Every thing that admits of it should be drawn on the slate, (or board), instead of being explained in words. Pictures, drawings, casts, photographs, models, plans, maps, antiquities, &c., in illustration of our texts, the more the better.—Sedgwick.

Fertility in device, in illustration, in graphic drawing, should be a professional characteristic. From your own resources add vividness and reality to the contents of the text. Study home surroundings and experience as a means of illustration.—McMurray.

3. The pictorial work that may be done is limited by the skill and ingenuity alone that the teacher may bring to that phase of her daily duties. Word pictures of the reading lesson may be made to assume form and shape and seem to live again in the few strokes on the board. Geographical features can readily be represented in almost unending variety. Plant products, especially, lend themselves to such illustrative work on the board. These are but suggestive. Easy drawings for the geography class are at hand every day. No subject is barren in the opportunity for the use of the board in pictorial illustration. It is a field as yet but poorly cultivated. In the line of diagrammatic illustration there is a broad field for investigation. The thing that comes to mind most readily with most teachers when the diagram is mentioned is the analysis of sentences in the grammar class by the diagram. This, however, is one of the least valuable of the diagrammatic illustrations. Relations in arithmetic, comparative areas, length of rivers, miles of railroad, growth of population, increase in products, and other statistical facts as well as abstract ideas may be made to assume intelligible form by a judicious use of this means of illustration.

4. There are several reasons why teachers do not use the board more freely as an agent in making clear the instruction from day to day. One of these is the failure to recognize the great need there is for the use of something to render the in-

struction more concrete. It has been the custom too much to teach words rather than ideas with words as the mere signs of ideas. A second hindrance is the inability to recognize the salient points in a lesson that lend themselves most readily to such a means of interpretation. This side of the teacher's work requires care and study as well as any other line. To see quickly where a hasty drawing or a simple diagram will give new meaning to a point is a prime characteristic in a teacher. An additional point and probably the one that stands in the ordinary teacher's way more completely than either of the others, or the two combined, is the superstition that she can not draw, or that her attempts would be so crude as to excite unfavorable comment. Such surrendering to one's timidity and fears is not becoming to one who aspires to leadership of the young. There are failures innumerable along the highway of life due to this cause alone as compared with one due to the other tendency of over confidence. Common sense and a firm will may work wonders here. "Our fears do make cowards of us all."

5. Teachers can improve. It would be a serious reflection on the intelligence and persistency of the teaching fraternity to assert that it is beyond the power of teachers to improve themselves in this particular line. They can and should improve. The difficulty lies in a great measure in the inability to see things. There is a lack in the imaging power, even of that power that simply recalls what has once been seen, but is not now at hand. The power to recall the outline and features of an object can be cultivated, and also the power to construct what has never been seen from the elements that descriptions, pictures, and similar objects near at hand furnish. If the imaginative faculty can be cultivated then the power to illustrate better even to the use of the blackboard can be improved. Clear mental images lead to clear speaking and teaching, and they lead also to clear drawing. Muscle training is necessary in some degree, but it is a matter of mind training in far greater degree. Teachers may improve constantly with little expense in time by trying to find the lines that give character to the landscape and all views that strike the eye ~~as one walks~~, by examination of pictures in text books, ~~magazines~~, advertisements, cartoons, and the like, and then in

spare moments trying to recall and reproduce in a few lines on the board or on paper. The blackboard is here and it should be made a living power in the operations of the school.

Aside from the help that school journals are constantly furnishing along the way, there are inexpensive books that are very suggestive for one who has the interest to investigate and to think. These are too numerous for mention here, but their excellencies and the low rate at which they may be obtained should encourage any teacher to make a study of this question. (See list of reference books.)

#### 44.—PICTURES, MAPS, CHARTS.

1. Pictures should be selected for the simplicity with which they tell their story. They are better for not having too much color and a great amount of detail. The thing to be illustrated should stand out clearly and have nothing of the nature of a puzzle picture about it. There is probably no subject in which this aid is not useful. It is a good sign that language books are making so much use of pictures now. These are not for making mere sentence exercises such as—"I see a cat," "The cat has two eyes," and similar almost useless exercises. They are for study, and from the picture the pupil's imagination should be led to formulate a good story or description that is accurate enough as to fact to be a safe mental exercise, but still has enough of originality to make it valuable language training. In reading, in history, in geography, in fact every where the picture generally stands nearest to the real thing of any of the illustrative devices. With the cheap reproductions, the illustrations in text books, in magazines and papers, there is opportunity for collecting pictures, that in many cases have especial artistic merit, but at least all may be valuable as illustrations of particular points in teaching. Also there should be constant effort made to induce pupils to look at common objects, landscapes and the like, and think of them as they would appear in pictures. In like manner the imagination should be exercised to see real things from the objects represented in pictures. Pictures in things and things in pictures should be the effort. For class use the picture should generally be kept out of view until the pupil has made an effort to

see the view mentally by his own picturing faculty, and then he may see the picture as a means of assuring himself of his success or of correcting the images he has been able to form.

2. Maps are a very common device, and while their use is extremely essential, too often they are made the end rather than the means to an end. The end is not the remembering of geography, reading, and history by map symbols, but rather the seeing of a real country, coast, mountains, cities, through the suggestiveness of the map. There are times when the map is all that can be held in mind, but the effort should constantly be made to have pupils think beyond the map to the thing symbolized by it.

3. Charts are devices that put ideas of statistics, comparisons, classifications in form to appeal to the eye. Abstract ideas may be made more clear by sensible charting. As with maps the chart should be an aid and the facts back of it should be that upon which the mind is ultimately to fix itself. (See list of reference books for further suggestions on these topics.)

#### 45.—COLLECTING AND PRESERVING ILLUSTRATIVE MATERIAL.

1. Some teachers seem by instinct to select the best of illustrations and know just when to use them. There may be something of instinct and inspiration about the process, but it is more probable that for every good illustration used this teacher has mastered several not so good and discarded them without using them. Indifference and its nearest relative, slothfulness, are accountable for more of the sins of omission in this world than newspaper obituaries would lead one to suppose. But recently that veteran writer and teacher, Prof. B. A. Hinsdale, was called to his reward. In one of his books, *Garfield and Education*, the following quotations may be found: "General Garfield's readiness on all occasions has often been remarked. Probably some have attributed this readiness to the inspiration of genius. The explanation lies partly in his genius, but much more in his indefatigable work. He treasured up knowledge of all kinds. 'You never know,' he would say, 'how soon you will need it.' Then he forecasted occasions and got ready to use them." On another

page of the same book two suggestive sentences are quoted from one who knew Garfield as a teacher—from a man who later was a University president himself. His words are as follows: "He had rare ability at illustration. His mind was growing every day, and the studies that nourished him nourished his pupils as well." In these few sentences are wrapped a volume of suggestion for thinking teachers who realize their weakness in making things clear to their classes. Eyes that see, ears that hear, and an understanding that grasps relations readily may not make one a genius, but they may make a very ordinary teacher into one of positive force and extended usefulness.

2. But many teachers say, "Where shall I begin to look for illustrative matter?" The answer is, "Everywhere." Especially is the community life of the locality in which one is teaching rich in materials for use in this way in the school room if he has the judgment to use things and groups, and thus avoid too prominent reference to individual men and women. The simplest and best objects for pointing the mind of the learner to the unseen truth are those with which he is in daily contact. Another source, aside from the ever faithful text-book, is the daily or weekly paper. Both the local and the patent side of the common paper that comes into the homes of the pupils may be utilized in this way. Not every thing can be used, and much that is useful is not to be taken bodily, but it can be helpful through the suggestions that it breathes forth if these are then worked over into a living product by an active brain. The stray pamphlet, even if mere advertising matter, has something of value for this purpose very frequently. Standard magazines are full from cover to cover—advertising pages, pictures, and all solid reading contributing in due proportion to him who will but levy upon the treasures presented. Books are at hand to lend their assistance continually. Not just the professional book of the teacher or the book of ready-made illustrations, but the common, every-day book is a mine worth the working in this respect.

3. There are firms now advertising to furnish applicable clippings from the best current literature to illustrate any subject the purchaser may name. To get a full set of these clippings in that way would not be wise for the teacher, but a collection of

clippings of descriptions, pictures, discussions, and pointed stories should be a large part of every teacher's tools. As these things increase the question arises as to the best means of preserving them. A very simple and inexpensive way for temporary filing of such material is the use of the cover of note paper tablets after the paper has been used from it. With a rubber band around the back an opportunity is furnished for inserting such clippings as are made from time to time, thus keeping them safely until needed or until they can be assorted and discarded or laid away for future use. Another means for keeping these collections is the manila envelope that may be readily made at very little expense and trouble. A series of these can be prepared, and with proper title affixed they may be made to answer quite well the purpose of a more expensive file. A series of pockets or envelopes fastened together, such as business men often use for classifying invoices and other papers, forms another convenient means of homing these literary waifs. More commodious and still not seriously expensive are such devices as the Chautauqua file now on the market. Any of these devices are preferable to the ordinary scrap-book, for the latter is cumbersome, necessitating the use of paste, is hard to keep in proper classification, and worst of all prevents the use of single articles without the burden of handling the whole collection. Also scraps preserved where the individual pieces are easily reached can be used to set an entire class at work on a theme when the book could be put into the hands of but few of the members of the class. In making use of such materials there is more than the immediate good to come from it in the inspiration that pupils may be led to feel for doing similar things when they see the help they are able to get from the teacher's clippings or from those that may be the property of the school through the united effort of teacher and pupils along this line. These collections should frequently answer the teacher's question, "Where can I find something to illustrate this lesson?"

4. Many of the princes of trade made themselves masters of the markets by giving attention to the things their competitors neglected. Frequently it is the "by-products" that furnish the margin on which the fine home and the independent fortune are

founded. That person is most valuable to his community who goes ahead and helps himself without waiting for public officials to furnish the means for his employment. In like manner the teacher who provides illustrative matter of her own by carefully watching for the unused articles that are lying about inviting a more intelligent employment than they now have is most valuable to the school and community. Better libraries, more teaching apparatus, and warmer co-operation are in store for those who prove their faith in such things by the personal effort and sacrifice they are willing to make for the sake of securing them. Demanding the interest and help of school officials is by no means so effective as commanding it by the superior use made of the inferior or simple means that lie at hand soliciting recognition.

#### 46.—MAKING ILLUSTRATIVE MATTER FOR CLASS USE.

##### I. Wall maps or charts.

1. There is a proper place for all the well-edited printed maps that the schools can afford. Likewise there is a large place for the outline or for the sectional map that should grow from the hand of the teacher. These may be made to present just what is needed to make the essential features of a series of lessons take hold forcibly upon the minds of pupils. Acting upon the principle of dividing and conquering they render it possible to fix what is needed most economically without the labor of hunting the points desired from a mass of matter that is adapted to some other school or locality only. When skill and time allow it, probably the blackboard map or chart that grows directly under the eye of the pupil is the best means for the presentation of individual features, but this is so rarely possible that other and more permanent means must be devised. The "home-made," cheaply constructed piece of apparatus is most promising of results that may readily be attained by the teacher of some ingenuity and moderate determination to overcome one's fears of failure in venturing into a field somewhat beyond past experiences.

2. The material is composed of things that may be collec-

ted with but little expense, as not all that is mentioned below is absolutely necessary before anything can be done.

(a). Paper. The ordinary wrapping paper that may be found in sheets or in the form of rolls in the common stores will answer all purposes very well. (b). Rubber marking pencil. This can be secured through any dealer in stationery supplies. These are useful in all kinds of ruling, lettering, tracing of boundaries, and kindred operations where ink is desired to give the work more permanency or a better finish. (c). Common ink. Writing fluids that become blacker as exposure to light and air are increased are quite suitable, but any ink may be used with good results. (d). Rubber marking type. This is one of the things that may be omitted from the ordinary teacher's outfit, but it is very convenient in making charts, lists of drill exercises in reading, arithmetic, language, and for various other purposes. (e). Dry map colors. These are not expensive and almost essential to give distinctness and attractiveness to the things that are to be made to stand out prominently for the attention of the class. A satisfactory substitute may be prepared by scraping the darker colors of the ordinary colored crayon with a knife and thus securing a fine powder. A colored crayon, called lecturer's crayon, that is very fine for this work, is made by the American Crayon Co., at Sandusky, Ohio. It is not expensive, as each stick furnishes material for a large amount of work. Powder from either of these kinds of crayon can be made more smooth in its application if the color is dark enough to admit of the addition of a little French white to the dust. This coloring material is applied to the paper by putting a soft piece of cloth over the tip of a finger and then dipping it into the color and rubbing it on the space to be colored, gently at first, and then more heavily to fix it in the fiber of the paper. (f). Colored crayon saturated in melted paraffine can be used for drawing, lettering, etc., on un-sized cloth if desired. In preparing the crayon all that is necessary is a few cents worth of paraffine wax melted in a tin cup or an empty can. The crayon is then dropped into the hot wax and when the air bubbles cease to rise they may be removed, and when cool they are ready for use. Work done with these colored crayons is as permanent as that done with ink. (g). Rainbow

crayon or other colored pencils commonly on sale at drug stores are very helpful to have at hand for setting forth things by contrast on small maps and charts.

3.—Means for Enlarging, Co-ordinate with "2" Above.

To transfer the features of a small outline drawing or the ordinary text-book map to paper for wall maps or charts requires more skill and time than the teacher has at command, commonly, if it must be done by means of the power to draw from sight with sufficient accuracy. Fortunately this need not be done as there are ways of reaching the desired end without the use of so much time and skill.

(a). The rubber string, tin pointer, and pencil. This is a device that can easily be secured by any teacher. Ordinary rubber cord will do with a small pointer made from tin or wire coiled about the cord so that it can be adjusted by slipping along the cord from place to place. To enlarge a drawing with this all that is necessary is to keep the pointer near one end and with that end pinned to the table and the outline to be enlarged under this pointer and a pencil at the distance toward the other end of the cord to make the required enlargement by watching the pointer to see that it follows the drawing and allowing the pencil in the hand over the sheet upon which the copy is desired, to trace as it will a very accurate, enlarged duplicate may be secured. Instead of the cord eight or ten of the ordinary rubber bands linked together with two or three at one end of a short piece of strong cord, and the remainder of the bands at the other end, will succeed even better than the cord. The inelastic string between the bands should have the tracing pointer fitted to it loosely enough to be adjusted readily. By pinning the small drawing or map on the blackboard this same device can be used for enlarging with the crayon. A little practice, patience, and ingenuity will enable any one to make a success of its use.

(b). The ordinary wood pantagraph can be secured from any supply house and it is a very handy piece of apparatus, but the device described above answers every purpose, is more easily manipulated, and has the advantage of being very inexpensive.

(c). Where a dark room is convenient or one that can readi-

ly be darkened is at hand, a two inch double convex lens of about ten or twelve inches focal length can be made to render the best of service. A box wide enough to fit a window and open on the side toward the sunlight, and having a movable shelf in it that can be raised or lowered, is all that is needed for the foundation. The lens can be set into the top of the box just over the center of the movable shelf, and with a mirror at an angle of forty-five degrees over the lens the image can be caught on a screen in the darkened room. The picture or other matter to be enlarged is laid upon the movable shelf directly under the lens where the light from outside is falling upon the shelf, and when this shelf is adjusted to the right focus and the outside light excluded from the room a clear image that is easily traced is found on the paper on the screen. Desired size of image is secured by changing distance of screen from lens.

4. Making duplicates of enlarged copies. There are many occasions when one needs more than one copy of a map or drawing or chart, and to make new copies of exactly the same size may require extra skill and time if it is to be secured through the enlarging process just described. These may readily be made in the following manner: Lay sheet or sheets on which duplicates are desired on a cloth covered table with the copy over them and pin all together. Trace the copy with a pencil or with the top of a penholder that has a blunt point. After removing the copy the indentations on the duplicates may easily be traced in ink. Four or five copies at a time may be made in this way. If blackboard stencils are wanted, by running a tracing wheel over the reverse side of the indented sheet they may be made sufficiently perfect for common use. Perforations can be made with a common pin in a short time in sufficient number to serve as all the guide points that are usually needed for a blackboard stencil.

5. Mounting maps and charts for hanging. The common shade stick that may be secured from any dealer in shades is the cheapest and most convenient means of preparing the map or chart for class use on the wall. With a thumb tack, first pressed through a narrow piece of wood split from the cover of

a crayon box, the paper may be quickly fastened, and it will not be easily torn from its fastenings in this way. There is little trouble to remove the fasteners and insert more sheets as the collection grows. Instead of thumb tacks brass-headed tacks, known in furniture stores as upholstering nails, do very nicely and are cheaper. These may likewise be driven by pressure of the thumb without the need of a hammer.

## II.—MATERIAL FOR SEAT WORK.

i. Making a number of copies for class use at the seats, of maps, examination questions, summaries of lessons, short selections for committing, songs, is a helpful thing for teachers to do.

(a). The duplicate printer or hektograph. This very convenient piece of apparatus can be purchased or it can be made, by a teacher with disposition to prepare for the best results, at little expense and trouble. The following formula taken from a copy of The Teachers' Institute of some years ago has been tried and found to work well, if the materials are of proper quality:

i. pt. glycerine.

4 oz. gelatine.

1 tin pan 8x12—a shallow caramel pan with upturned edges does very well. Some use an ordinary slate, filling the frame level with the composition. Two slates may be prepared and hinged together with the faces having the composition turned inward to protect them when not in use. Soak the gelatine in a pint of cold water; then add the glycerine; put upon the stove, stirring that it may not burn. When it comes to a boil pour into the pan or slate to cool. Beware of air bubbles and you will have a smooth, hard, sticky surface. If it should happen that the composition should be too sticky it is probable that the gelatine was more powerful than the glycerine, and by remelting and adding more of the latter this difficulty could be overcome, and in the same way the reverse process will remedy the fault if the composition should prove too soft for successful use. The materials should cost from sixty to seventy cents, at most, and there is enough in the quantity given to fill about four ten by twelve slates. If this sur-

face should become uneven or holes appear in it as is likely to be the case in some months of age, or if injury of any nature should spoil the surface, it may be made all right by holding a hot fire shovel near the composition, but not touching it, until it melts and flows together again.

To prepare to take the copies desired all that is necessary is hektograph ink and a common pen. The matter to be duplicated is put upon ordinary legal cap paper or other paper of equally good texture. When the writing is dry, without use of blotter, lay the copy on the prepared slate, or pan, written side downward, letting it remain from one-half to two minutes, according to the number of copies needed. Remove the copy and take the impressions wanted from the face of the hektograph on blank paper. Common printing paper answers very well for the copies taken. When copies begin to appear indistinct they may be made clearer by moistening the blank paper before applying it to the hektograph surface to get the impression. The ink will sink into the pad and the surface be ready for use again within ten to sixteen hours. When the composition becomes saturated with the ink and will no longer give a clear copy, it should be removed and a new supply of the material put into the slate or pan. This change does not have to be made frequently, however, even when the hektograph is in almost daily use.

(b). For all kinds of work of making copies readily and in great numbers the mimeograph is the most satisfactory instrument, but as this costs much more than most teachers can afford to put into such a piece of apparatus and as the supplies are more expensive than those for the hektograph, it is not so available as the apparatus first described. Any one using the mimeograph for making maps or even for ordinary autograph work, and desiring a number of copies, should put over the stencil, before fastening into the printing frame, a protecting sheet such as is furnished for the stencil for making type-written copies, or a piece of very thin cloth will do. One stencil will thus be made to furnish several hundred copies if they are desired.

(c). Another device for this duplicating of maps and pic-

tures is the stencil that is so easily obtained. These are cheap and within the reach of any teacher. Some who have special talent as artists may not feel that this is the artist's way of illustrating, but the busy teacher and often equally busy pupil should have the advantage of any such device that can be secured if it will make the work more effective. There is no virtue in misshapen scrawls called maps made by some pupils, and the time can be used to better advantage in furnishing a copy to be filled up with the essentials of the subject, giving his free hand efforts to small sections and to things that employ his artistic faculties to better advantage.

### III.—RELIEF WORK, SOLID FORMS.

I. The reproduction of ideas through doing with the hands is especially beneficial to all grades of pupils. There are some materials that can be had by any teacher without great opportunity for manual training in other respects. The reproduction of geographical ideas gained from the field lessons, from study of the larger units from sources that lie beyond the realm of his own experiences, and from readings and descriptions in books and magazines, is one of the best of educational aids to bring the learner into life-like touch with his school occupations. Building ideas of the territory over which historical events took place and a relief picture of scenes described in the reading lesson, are not only interesting to almost any grade of pupils, but very valuable. An abundance of such work may be done without loss of time, but in fact it is rather a time-saver, as the ideas become so much more fully fixed that they do not escape and need so frequent refreshing as those left without this process of reproduction. The outline of a grand division or some portion of land being drawn upon slates with a colored pencil, modelling material may be given pupils to have them express their ideas of relief and drainage by having them build up the forms on the slate. Threads or strings may be laid in for rivers. Some of this work is done with maps and other helps before the pupil to enable him to form correct notions of the region he is trying to represent. Ultimately he should reproduce his own ideas of the region without any thing present

to suggest or guide him excepting his own mental picture of what he is trying to shape. Correctness of mental grasp, neatness, and all other qualities of right thinking are even more readily expressed in this way than by written work. It is one way of giving an examination that avoids the outgrown ten-question system. As faithfulness of representation and not artistic work is the basis of judgment of the pupil's ideas, the plan is eminently fair to all.

Solids of various shapes and sizes may be made in this way and kept ready for use. A small globe made from some material used for this purpose is always convenient for use in the geography class in teaching change of seasons, longitude, latitude and various other points that should be presented through the senses rather than abstractly at first.

2. There are several kinds of material that may be used for this purpose. Potter's clay is one that is convenient and has many things in its favor. It can be secured through the supply houses and often it is to be had locally at a very much lower rate. Putty is always available if it is desired to use it. For some kinds of permanent relief work it is very good. Another kind of material is made from the best quality of whiting mixed with one-third its own amount by measure of wheat flour. By the addition of cold water this may be made into a paste that will make satisfactory relief forms. Equal parts of coarse salt and flour mixed into a stiff dough can be used with entire success by any one without the advantage of previous experience. But best and cheapest of all is the material that may be made from the ordinary newspaper, and which when made is commonly known as paper pulp. To prepare this all that is necessary is some old papers, a pan with water, a little patience and some work. The papers are prepared by tearing into leaves about the size of the pages of an ordinary text book. These small sheets should then be laid singly into the pan of water, seeing that each becomes thoroughly wet as it is placed. After soaking for six to ten hours, or even less, the pulp may be made by rubbing the sheets of paper between the hands until it is perfectly free from lumps or evidences of small bits of paper. This can be preserved indefinitely by keeping it moist, or by

allowing it to dry and then soaking it again in water. Work that has been done and has served its purpose so that it need not be preserved longer can be used by moistening for new forms. Slates are convenient to use in all pulp work, as they are not injured by water. Also maps and the like when dry may be lifted off and mounted on blue card board, leaving the slate for repeated use. The other materials should be used on boards or straw board where the work can be left, as it adheres very firmly. Aside from the fact that it is so readily removed the pulp is more desirable in the hands of pupils, because it is perfectly clean, and so easily managed, as it never sticks to the fingers. This paper material or the flour and salt mixture either may be colored to show various features as the teacher may desire, by use of ink or cheap dyes, or the paraffined colored crayon. It may be well to remark here that colors used in this way should have purpose in making essential features stand out distinctly, rather than that they should be used for show alone.

For modeling in a less permanent form or on a larger scale the common sand table is of great use. In still larger units made readily on the school room floor, such as models of forts, battle fields, river basins, cities, and similar areas, sawdust is very satisfactory material, being clean, light and easily removed.

#### IV.—THE EMPTY CRAYON BOX.

As this stands it has value in illustrating the mechanics of the making of a box. It may well represent the lumber of larger length and greater thickness used in other structures. The groove in which the cover slides, the mortices and the tenons that hold the ends and sides together, and sometimes the illustration of the dove-tail joints, all combine to make it worth preserving. By calculating its cubical contents it may become a convenient school room measuring unit. By cutting off an end at the proper place the dry quart, liquid quart, the liter may be readily made. A sharp knife and a few of the furniture nails previously mentioned are all the tools needed for this. Ends and sides holding as they do by mortise and tenon may be set to show various angles. Drawing models can thus be secured

to give some variation. All parts of the box furnish materials for models of surface forms, rectangles, triangles, etc. Decimeter rulers, six inch measures may be in the hands of pupils and used enough to fix them in mind with no trouble or expense. The physiology class can get a good idea of the real capacity of the lungs by means of the calculation of cubic space in the crayon box and making comparisons with the statement of the text as to the air space in the lungs. A good model to represent the draw bridge mentioned in a reading lesson was quickly made from the side and end as they are jointed by a teacher recently. These are suggestions; others will find more ways yet to make this box supply illustrative material. A model of a canal lock has also been made from material from the crayon box and some leather hinges.

The ordinary shade stick may furnish some help to the exercises of the school. A yard stick, showing feet and inches is at the command of any teacher. The meter with all its divisions can be had for the slightest effort. Nearly all arithmetics have the decimeter measure shown. A piece of paper cut the length of this measure and laid ten times on the shade stick gives the meter, this can have the decimeters, centimeters and millimeters shown. Pupils may and should thus be as familiar with the metric system as with the common inconvenient set of denominative number tables, and thus the advantage of the metric system would impress itself and the superstition as to difficulty of its use would gradually die away. If our money system is a success, then the decimal system of denominative numbers would be equally successful.

The progressive teacher is continually making use of common materials and finds her funds never fully exhausted. Think and try.

## TEACHING IN INTERMEDIATE AND GRAMMAR GRADES.

### I.

#### Reading.

In no other subject does the preparation for the work and the work itself assume a more distinct difference of character than in that of teaching oral reading. Far too much of the work that is commonly done as teaching reading is only preparing for the reading exercise. The teacher's study of the problem, then, divides itself, in the main, into two phases, viz.: the study of the accessories and mechanics of the process, and the assignment and conducting of the reading lesson proper.

#### 47.—PREPARATION AND ACCESSORIES.

1. Mastery of words. This is essential before the pupil can read at all, and yet it is not distinctly a reading class exercise more than it should be an operation in the study of other subjects. The vocabulary of the pupil must grow from the lists of words coming into it through the history, geography, arithmetic, language and other occupations of the school as well as through the reading exercises. Words are the mere signs of ideas, and ideas are to be secured from these subjects as clearly as from the reading book. In fact the way the teaching is generally done in some schools the thought of the pupil is that he is accountable for ideas in the other subjects and simply for bookholding, standing erect, managing his breathing, careful articulation, accurate pronunciation of words in the reading period. The teacher of any subject who allows the pupil to pass over a significant word without getting into his mind the appropriate idea symbolized by the word, is guilty of spoiling his reading as truly as the reading teacher does when she allows the mechanical part of the exercise to monopolize the time and neglects the thought side of the process. The teacher when an instructor in history, geography, arithmetic and the like, can not be careless of the thought and the necessary training in seeing what is under the words if she expects to have good

readers in her class. Frequently it is said that the reason the pupil fails in arithmetic, grammar, and his work in college, is because he can not read. It is equally fair to cast back this statement and say that the reason he does not read well is because he uses the terms of these branches without an adequate idea of their meaning, and thus acquires habits of mind that induce him to look upon all exercises in a careless and indifferent way.

The mastery of a word signifies a recognition of its form as that form shows itself in the power of the letters composing the word, and thus finding the proper pronunciation of the word. This form mastery while very essential has little more to do with reading aloud than it should have to do with other topics. The content of the word must likewise be grasped if it is to be rendered in appropriate tones. Its power in the particular place that it may be occupying has to be recognized. Why that word instead of some other word almost synonymous? In like manner the mastery of a word means an advance in the power of the child to form correct images of things suggested but not present to the senses. The diacritical marks of the dictionary are an essential element in the process of fully understanding words, but it is not necessarily a reading exercise to have the class in reading make such study of the dictionary more than for other subjects.

There are a number of things to engage the attention of the teacher in his attempt to lead the pupils to acquire new words. In the first place the learner must feel his need of knowing the word. This can be impressed upon him simply by his realizing that he must have the thought of the sentence and through his effort to master that he finds he must know each word in its fullest meaning. This leads to the suggestion that the pupil must learn that many of his words are most readily learned through the context. He finds that he cannot get the full sense of what he reads without understanding some particular word, and thus sets about the mastery of that word. In much the same way he realizes that the meaning must be what he can reasonably surmise it to be with quite a satisfac-

tory degree of accuracy through the other words of the sentence which he already understands. This sets up a process of reasoning that is valuable in itself, and in every way helpful to his progress as a reader. *Teach the pupil to try the context to get the meaning, and then confirm himself by other means when in doubt.*

2. Sounds and syllables. Early in his career as a student the child should come to recognize the fact that the letters of the alphabet of which the words he is trying to read are composed, stand as symbols to the eye of sounds, most of which are already familiar to his ear. Instead of dropping these sounds or the tendency to attack the new word by means of them he should be more ready as the years go by to make use of the principle of phonetic spelling or of "sounding" for correct pronunciation. Very good results can be attained without a cumbersome list of rules by constantly applying the tests that are at hand, and thus gradually extending them until all the sounds represented by single letters and the common combinations are at the command of the learner to enable him to overcome his new enemy in word lists as he meets him. Closely allied to this process is the one of syllabication. In his efforts to make himself strong in the command of words the pupil should be led to see syllables readily and accurately. Much time now wasted could be saved by more careful use of the power to recognize quickly the small units making up the larger word of several syllables. Sometimes the word can easily be seen to be made up of two very common and simple words, each of which the child could pronounce and understand without difficulty if his attention were directed in the right channel. *Have pupils master sounds and constantly use them in trying to overcome new words. In like manner make all possible use of the process of dividing into syllables.*

3. Explanation, etymology. There are several other elements in this process of word mastery that are very essential. Explanation through use of synonym or antonym is frequently the best method available. Illustration by means of a drawing, an object, or an action is another way of making the meaning of the word clear. Using the word in a sentence prepared with

other words, all of which have a clear meaning to the pupil, will enforce its power. The etymology sometimes is the best road to the desired end. Finally, definition and description step in to confirm and make sure all other attempts. All definitions should be tried, however, by the pupil by substituting the definition in the context of the word itself. *No class of pupils is too far advanced to make use of all these devices for mastering new words.*

#### 48.—PURPOSE AND MEANING OF WHOLE SELECTION.

Next to his effort to master words, not in importance necessarily, for these processes can not be separated into primary and secondary activities, is the one of getting the meaning of the entire selection and of each essential part. This leads to the question of assignment of the lesson. In all subjects this part of the teacher's duties is far more important than the time and skill in making it would suggest to the ordinary observer. It is the seed time of the study period and the recitation combined. To assign a reading lesson so that it will require and secure study from the pupil is no small undertaking. Also to so lay out the work that the dullest may find something of profit for his efforts and the brightest may employ all his time and energy to advantage, requires forethought and good judgment. A leading reason for the fruitless reading lesson is the poor assignment.

Pupils should feel as much responsibility for definite results in the study of a reading lesson as in the study of one in arithmetic, history, geography, or language. If the selection to be read is not too long to be read in the study period by the class, the entire piece should be given for reading first as a whole. This should enable the child to see the purpose of the author in writing the article as it may seem to him with his state of mind that the author intended it. It may be best to use other terms rather than to talk to the class of the author's purpose, or of the lesson that he intends us to get, especially if by that the pupil feels that he is to determine the moral of the piece. One of the following questions may be suggestive as to

the way to propose to the child what he is to do. Read the entire selection and determine what the author says to you in it. What do you think the entire piece means when you have read it all very thoughtfully? Why did the author write it? What does it seem to you the writer has said in the whole poem? Get what you think the author was trying to teach when he wrote this. What to you is the writer's thought? The pupil should be as accountable for his answer to this problem set for him in the reading book as for one in arithmetic. He should be expected to bring his results to the recitation carefully worked out in definite language and written on slate or tablet just as he would bring in the fruits of his investigations and study in other subjects. The results need not all agree, in fact they probably should not agree, as the grasp of the meaning of any standard selection is a relative rather than an absolute matter. Each pupil is to reach some conclusion for himself, and to record it to bring to the class with him. To fail to be ready with this is as much a failure as that of any other lesson. A sensible discussion of the results obtained by the study of the various members should lead to some reasonable conclusion that may be the common opinion of class and teacher, rather than a decision that should be absolutely final. There is no other place where the judgment of the pupil may be more properly exercised than in his interpretations of the literature that he reads in his school reading book. He should be led in forming his opinions, but not forced into the position taken by teacher or other members of the class. So long as he can give a sensible reason for the position he takes he has a right to his way of thinking, and even at times his judgment should be respected when he can give no more plausible argument than, "I believe that is so because it seems so to me." *Look for whole units and have pupils study them as such and bring in the results thus obtained.*

#### 49.—STUDY OF PARTS.

When the meaning of the selection as a whole has been determined by the pupil he should in a similar way attack the parts. Sometimes these parts may be found to be several stanzas or paragraphs that seem to have a relation to the same central thought. If this is seen to be true the attention of the

class should be called to it at the time of the assignment, and appropriate suggestions made for its study somewhat after the manner of the study of the entire piece. In like manner the smaller units of paragraph or stanza should be examined to determine what the force or meaning of each may be in the light of the end the pupil has selected as the thought of the author in writing the extract under consideration. It can readily be seen that this process can be carried out to the meaning of sentences and to the important words themselves. Such study will require of the pupil thoughtful attention to everything within the selection itself that can be of service in making its meaning stand out fully. The class should come to the recitation with these points settled in their own minds and some means of recording the results of their study should be used. Sometimes the paper of the pupil may contain a topical outline of the ideas he finds in the lesson arranged in their proper order. In some lessons drawings may be made to suggest the thought in parts of the selection. At the assignment a series of questions may be proposed that will require careful study and the answers required to be given in writing. A written statement of the thing, or things, and persons that have part in making the piece and an estimate of what each has to do in giving meaning to the lesson, may sometimes bring the best results from the effort of pupils in study. There should be constant effort on the part of the teacher to have members of the class picture vividly in the mind and state accurately the pictures and the part of the lesson furnishing each picture. These are given as suggestions for varying the manner of having the preparation shown, but the preparation should be made and shown in some way. The extent to which the study of any selection is to be pushed depends entirely upon the ability of the class, but every grade should feel that thought is the essential thing in every reading lesson. *Have the pupil seek a sensible end as the object at which the author was aiming in his writing. See that they then determine the meaning and pictures of each part as contributing to that end.*

#### 50.—GEOGRAPHICAL AND HISTORICAL SETTINGS.

Another of the legitimate accessories of the reading lesson is the study of the geographical setting of the piece. It may

have a local coloring due to season, place, or occupations that should be mastered. Historical allusions are appropriate matter to engage the powers of the child in his effort to see into the mysteries of the thing in hand. Some study of the author should be made when possible in so far as this will throw light upon the selection or add interest to the recitation or study period. The work here mentioned is not for the accumulation of geographical facts, learning of historical events, or an acquaintance with men and women excepting as these side lights may help in the reading exercises of the school.

### 51.—THE TEACHER'S QUALIFICATION.

1. Incidental. It is said of a woman teaching in a New England female seminary about seventy-five years ago, that she could so teach arithmetic, grammar and similar common branches, that a girl might obtain from them a mental power far above that which her brother received in the Latin and Greek studies at college. The writer of the article from which the information in the previous sentence is obtained gives the following sentence near the close. "The reader of this article will come to the conclusion that superior teaching can only be performed by one who takes life seriously." "Beware," she says, "of allowing a young girl to value herself according to her facility in reciting." The view of the teacher given here and the one that may be taken of the pupil will serve to help one to get a clearer vision of the position of the teacher of reading.

There is too much of a tendency in the common view of the teaching of this subject to look at it almost entirely from the standpoint of the activity of the pupil in the recitation period. Something is expected of him in the way of preparation, it is true, but it is so indefinite and has so little relation to the life giving power of the extract that is under consideration that he is satisfied to make very little effort in studying his reading lesson, and his teacher is almost powerless in her attempts to induce him to study. The preparation of the teacher is a primary essential in the attainment of the desired end in this subject as in all others. This preparation is both remote and immediate. First she should be a person that looks upon the question of the study

and teaching of the literary values of the standard works given intelligently and seriously. To think of being able to teach reading without hard and persistent study is to be willing to give chaff for grain, and to do one's work very superficially and with little life giving inspiration to the class. One feature of the remote preparation is for the teacher to be constantly improving her tastes by thoughtful reading of simple but pure productions of the masters. This need not be the critical lexicon, reader's hand-book, and encyclopedia study for the exhaustion of the details of the readings, but rather that phase of study that looks for pictures, for effects upon the sentiments, for inspiration, for beauty, and for high ideals. The person who has no desire or inclination to make the use of standard literature here suggested ought to spare the children by finding some other occupation, and not try to become a teacher. Blessed, indeed, are the pupils of that teacher who finds so much of beauty and of interest in the extracts that are necessarily given in the readers that she can not be contented until she has seen them in their setting in the complete work. Preparation for teaching reading is not made in a day, it is a thing of constant, persistent effort, not so much with the definite understanding of just the place that the accumulation of each day will be applied, but with the feeling that sometime, somewhere, the efforts of the present will bear fruit. How can a pupil go from his school days with a love for the best in literature and a taste for it if his teacher has not been able to impress him with the fulness and power of this same literature by her completeness and inspiration drawn from the same source? As the teacher so the pupil. Each day should make some contribution to the teacher's stock in trade in the line of mastery of good literature. Always reading with all the faculties awake and seeing vividly in all study is another of the remote means of becoming a better teacher of reading.

2. Immediate. The immediate preparation of the teacher for the reading lesson is in some respects very similar to that which the pupil is expected to make. This should not be such a very trying matter if the teacher is as well qualified as the remote preparation assumes. There will be words, allusions, figures to look up, geographical and historical points to settle, something

of the author to be known, and a reasonable determination of the proper interpretation of the selection to be made. When these are made as complete as it is possible for the teacher to make them for herself with the time at command, she should be far enough in advance of the thought of the class to feel well filled with matter and inspiration to lead the class intelligently. She must still realize that it is she that is exhausted and not the extract she has been studying. This should lead to a realization that the pupil will have to stop short of the full grasp, and it will be his great good fortune if he can be led to see that he has not touched the lowest depth of meaning before his interest is allowed to flag, for then he will leave his work with a feeling that he wants sometime to re-read that piece and he will be delighted when he reads it again to find that it contains new beauties for him.

The most perplexing thing in the immediate preparation is the planning of the work so as to have the class get from it what the nature of the piece to be read would seem to suggest that they should get. This is in great measure one of devices, such as questions, objects, maps, drawings, pictures, and the like, that will assist in making the thought clear to the class. It is not enough to tell the pupil to look up these matters for himself. His teacher must lead the way and inspire by example as well as urge by precept. The end is to be seen that the selection should accomplish for the pupil and everything made to bend to bring about that end. Several things may be enumerated to be kept in mind. The piece should leave him with a little more desire to read something of the same kind than he had when he began it. His stock of general facts should probably have grown. His power to picture to the mind and his progress toward abstract truth should have developed somewhat. There should probably be a silent, subtle influence touching him that is too imperceptible to make him feel that it is the moral of the lesson made visible, and yet such that it touches his motives and unconsciously tends to shape his acts. These are enough to try the skill of any teacher. All things considered, a taste for good literature is probably well in the lead of all the blessings to be conferred upon

the child by his public school experience. How can that be implanted when the noblest and best in literature is made the crippled hobby of a mere word-pronouncing, prosy, time-serving teacher? It would almost seem sometimes that less of injury would come to the mind or taste of the pupil in the use of selections of less literary merit, since the exercise so often is such as to disgust or at least fail to arouse the pupil's interest in the tone of the selection, and thereby breeds in him a certain disrespect for what is lofty and purest. The road to better reading work lies through the realm of the teacher's preparation, taste, and fancies even more fully than in the pupil's study and the mechanical humdrum reading exercise. Pictures with their purpose must first be formed in the mind of the teacher before they can take shape in the mind of the pupils. Truth is the only thing that has true developing power in the mind, and its mastery in literature is even more essential to right sentiments and motives in life than it would generally seem to be in science and mathematics.

#### 52.—THOUGHT AND MECHANICS OF EXPRESSION.

Thought is at the foundation of all sensible reading. It is by no means a waste of time to study much and read orally very little, at times, in the recitation period. Some teachers think that nothing is being done in the line of teaching reading unless there is a pupil standing and producing sounds more or less intelligible or blundering painfully along in his attempts to name the words down to the next period. The lingering torture and misery inflicted thus upon an intelligent child's mind is enough to make him feel, as he frequently does, that the reading period is the climax of all the dull exercises of an oftentimes very dull school. Put life and vim into the reading and the reflex action will bring rich rewards in the other subjects.

Pronunciation, articulation, time, force, quality of voice, pitch, position of the pupil, book holding and kindred matters should receive the most careful attention, but they should be given attention as a part of the study and preparation for the oral reading, and not be allowed to intrude into the oral exercise to such a degree as to take the attention of the pupil from the expression of the thought. He ought not to try to render the

thought until he has the tools for doing the work well at his command. One paragraph read thoughtfully after the questions of pronunciation, time, pitch and like accessories have been determined by a study leading to a sensible understanding of the thought, is worth a dozen drawing prosy exercises requiring frequent aid from the teacher in naming the words. In such work the time is not regarded, and cannot be, and neither can any of the others of the elements of expression. Drills for improving the pupils in articulation, in managing the breath, in standing erect and in proper position for good expression should be given, but it should be distinctly understood that these are but the aids to reading and should be taken as such, and generally at times entirely separated from the real attempts at rendering the thought of one of the good selections given to be read. The understanding of the thought should take care of the time, pitch, quality and force.

### 53.—QUESTIONING BEFORE READING.

Aside from the preparation that it has been suggested in former pages that the pupil should be required to make, there should be sharp and lively questioning of entire class before the attempt at reading. Generally this should be done with the book open and the questions made so that the answer can be read from the book, thus answering in the words of the author rather than in the pupil's own words. Much of the talking done by pupils in response to the stereotyped question, "Who can tell us what the lesson is about?" is of the most useless and senseless kind. The questions should aim at bringing out the thought in the language of the author, and in this way as a preparation for the reading of entire paragraphs much oral reading of a profitable kind is done, and yet it should not be looked upon as reading, but simply one of the last attempts at getting the thought firmly fixed in the mind so that later it may be fully expressed in the reading. Good, sensible questioning, free from the mincing question, should be done before the reading. What is the value to come from having pupils read and then question for the thought that is the only thing that can insure good reading?

When the reader shows by his reading that he does not have the thought after all effort has been made to have him get it, there then may be something done to clear it up and improve his reading by questioning him and the other members of the class, and he or another may then re-read, but simply questioning without definite purpose in trying to have that improve the reading is of little use at this late stage in the exercise. Likewise to ask the pupil who has failed to read again without anything to guide him in seeing where he made his mistake, is a waste of time, and will quite likely fix the very fault more firmly, while the intention was to remove it. Many questions should be given in such a manner that the pupil cannot answer without giving the emphasis to the proper word if he answers the question intelligently. The time for severe criticism for peculiarities of speech, inaccuracies of pronunciation and similar faults has passed before the real exercise of reading began. Everything should be so managed as to relieve the reader of all traces of self consciousness, thus leaving him free to give himself entirely to the rendering of the thought and not allowing himself to be hindered by thoughts of the mistakes he may be making. Very many of the criticisms made by pupils on the reading of their fellows should be prevented by not allowing the mistakes to occur by carefully finding out before hand what was likely to be done by the one reading, and remove the difficulty before he reads. Some of the remaining mistakes may wisely be ignored. Thus there will be few adverse criticisms to be given by pupils. Rather than many such criticisms the minds of members of the class should be directed to the excellencies of the reading.

#### 54.—RECOGNITION OF DISCORD.

Finally, the teacher of reading should have much of the quality of a good band leader who knows by his ear when everything is going right, and who by instinct guides in time and expression by the attitude and expression of his body, hands and face. It should be as evident to the teacher when incorrect time, improper pitch, poor quality of voice are manifested by the reader as it is to the orchestra leader when the first violin is "out of tune." The discords in the expression of pure, noble thought





CLARENCE E. STEELE,  
*Cedar Falls, Iowa.*  
CLASS 1897.



MAUDE A. LONG-STEELE,  
*Cedar Falls, Iowa.*  
CLASS 1898.

*State Normal Graduates as Teachers in the Philippines.*

in a literary way are just as prevalent as they are in the musical world, and the teacher should recognize this and prevent the lowering of taste by seeing that the rendering is worthy of the thought.

Aside from their own untiring efforts, teachers of reading may find much help in the following books. McMurry's Special Method in Reading; Hinsdale's Teaching the Language Arts; Clark's, How to Teach Reading in the Public Schools; and Arnold's Reading: How to Teach It.

## II.

### Spelling.

#### 55.—WHY MISTAKES OCCUR.

There are two reasons why pupils and people in general do things wrong. These are ignorance and carelessness. Faults in spelling are all due to these two causes. It is quite probable that the mistakes found in any ordinary work of the school may be charged about equally to each of these causes. Indifference and want of confidence are hindrances. There is a marked degree of indifference as to the necessity of good spelling in the minds of pupils in general. Some think that poor spelling, like poor penmanship, is a mark of genius. It may be allowable for the real genius to violate all law and custom in this subject, but the common man must know how to spell correctly, and the common school must teach him. (Indifference should be met with earnest enthusiasm. Want of confidence must be overcome by making the question of spelling correctly so easy that all may catch a ray of hope and thus be inspired to put forth increased effort.)

These are not insurmountable difficulties and should be met with a strong purpose and a firm determination on the part of the teacher.

#### 56.—TEACHING, NOT TESTING, SHOULD PREVAIL.

At too early stages in the pupil's experience the spelling exercises are made of the nature of tests almost entirely, and not enough is done to avoid the opportunity for making mistakes.

It costs more to correct one mistake than it does to teach two facts correctly. There is a time for reasonable test in the spelling exercises as in all other subjects, but far more of the pupil's time should be given to doing the right thing than in attempting what is beyond him, and thus fixing his mistakes through fatal blundering.) Very frequently the tests put upon the child in this branch are such that he readily excuses himself for his mistakes, and therefore makes no definite effort to rise above the difficulty. Correct spelling is in a marked degree a question of proper habit. Since correcting errors is much harder than preventing them, in most cases, it should be the purpose in all ways possible to form the right habits from the start.

#### 57.—SOUND NOT A CORRECT GUIDE.

An examination of the papers written by little people when left to their own direction, shows a distinct tendency toward phonetic spelling, which is a fatal thing in our present lawless system. (The eye and not the ear must be the guide very nearly all the time at first, and never should it be fully abandoned.) Many things that children even well along in the grades give orally might well be written on the board by the teacher to be accurately copied by the pupil afterward, rather than to have him try to write it for himself and misspell numerous words. Much poor spelling is due to an undue pressure for originality in the language of the child. His language from the first has been largely a matter of imitation, and if he has once helped in giving the thought of the class orally, the correct writing of it should be made very easy and practically assured.

#### 58.—TEACHING THROUGH COPYING, TESTING BY DICTATION.

Very much of the pupil's effort in the preparation of his spelling lesson should consist of absolutely accurate copying of the lesson from the book to be handed to his teacher at the opening of the recitation period. If one is inclined to think this too easy let him try it for himself and he will find a test of his powers that he little expects. In the recitation period let the child copy words, sentences and paragraphs after the teacher as they are

written on the board. Some of this may be from the lesson that he has studied. Much of it should be of similar grade, but new. All of it should be understood before it is copied. Any mistakes made here, and there will be many, are due to carelessness and should be made right at once and the habit of care and accuracy formed at the same time. The term dictation here is used in the broad sense of the "giving out" of words or sentences for the pupil to catch by ear and then spell from memory or habit. These dictation exercises should generally be taken from things that have been accurately copied a number of times. Some easy new matter should be given often enough for the teacher to discover where the greatest weaknesses lie in order that these weak places may be made strong. In dictating words or sentences the teacher should give all that the pupil is required to carry in mind with the book closed. The class should listen attentively until the teacher ceases speaking, and then write. While they write the teacher may look at the book for the next matter to dictate. Speak in quiet but distinct utterance and try to have all catch the dictation from one effort.

#### 59.—RULES, DRILLS AND INSPIRATIONAL DEVICES.

When pupils are far enough along to have a vocabulary of their own that will furnish examples by which they can be led inductively to discover some of the more simple rules that are helpful in mature life, these rules might be or should be taught. The words that have given especial difficulty should be arranged for reviews by copying and by a few minutes concentrated attention upon a few at a time on the board to be written from memory after they are erased. (Calling attention to special difficulties in certain words is a valuable practice.) Writing little stories with certain words to appear in them will not only help to get the words used, but will help in the pupil's language. The words may well be put on the board so there shall be no mistake in the spelling in such an exercise unless the teacher is quite sure the class can all spell them correctly. (Oral spelling has a place as a drill and an inspirational device.) Some time should be given to it. (At times the class may slowly name the letters of a word while the teacher or a pupil writes it on the board.) It is well to

let them name the letters in concert slowly, so that they may be impressed upon the sense of hearing while all write the word on paper. This can be done quietly as shouting is in no means a necessary attribute of concert drill. Words pronounced alike, but spelled differently, should not be given, if given at all, in pairs, until late in the course when the pupil is so well grounded in the meaning and spelling of each that their relation can in no sense confuse him.) This is a dangerous device for arousing interest and should be used cautiously. Word building may sometimes add interest to a spelling exercise. The old fashioned "spelling match" had its benefits that should not be entirely ignored. (In all these exercises, however, the aim should be to have incorrect spelling fall upon the eye or ear of the pupil just as little as possible.) Finally, make it as easy for pupils as possible, and then expect proper results when conditions are made favorable for them.

### III.

## Geography.

### 60—IMPROVEMENT IN TEXT-BOOKS AND TEACHER'S VIEW.

In his report on the correlation of studies the Commissioner of Education for the United States, Wm. T. Harris, places Geography as "second only to Arithmetic among the branches that correlate man to nature." Such recognition along with the constant growth that is evident in the study of the subject in the best of universities and colleges gives good excuse for the public school teacher to make the most careful preparation for the presentation of the foundation principles in the elementary schools. Within the last few years there has been such an improvement in the text books and other devices used in the teaching of this branch that there is scarcely any excuse for poor work and uninterested classes in this subject longer. In fact, the problem is at present becoming somewhat serious as to the best things to select and teach and what that is being loaded upon the teacher of geography should be thrown off as interesting but dispensable matter. However, from the great fund of sensible material and

the excellent helps at the command of the common teacher there is reason to rejoice in the hope that something better is in store for the children in coming days than has been the good fortune of many in the days gone by.

Those teachers in any line who see in the branches they are teaching the fundamental relations that the matter under consideration bears to the real life of the pupil and the purposes of the thing studied, are always the best teachers. One whose efforts have had much to do in elevating the teaching of geography to its proper place has well said, "We must elevate ourselves to the moral world to understand the physical world; the physical world has no meaning except by and for the moral world. It is, in fact, the universal law of all that exists in finite nature, not to have, in itself, either the reason or the entire aim of its own existence." This lays a broad and deep foundation for the teaching of such a material subject, since it removes the motive from material things alone to the higher and truer plane of intellectual and moral worth. While the fundamental needs of man, food, clothing, and shelter, will still appeal to the ordinary man as the most powerful stimuli to the activities that direct the efforts of the race, and while all good teachers will continue to recognize this as a part of the purpose in all work, they will also see the higher motive crowning their efforts with a value not born alone of the physical utility sentiment.

To the earnest teacher, then, the earth is not a mere material thing, but it becomes instead the complement of man by challenging him to a combat with physical forces that by action and reaction develop him in all the elements of his nature, physical, mental, and moral. This improvement that has come in the line of geography teaching in the past years has led away from the old and barren ideas of dead forms to something with life and inspiration in it. From the sailor geography of capes, headlands, bays and harbors, or the traveling man's mental picture of railroad lines and dots for cities on the map as the exclusive effort of the child, it has developed into a study that breathes of landscapes with brooks and meadows, farms of waving grain and grazing herds, railroads with steel rails and panting locomotives, and cities bustling with commercial life.

## 61.—VALUE.

On its lower or fact side alone, the subject in this day of the telephone and daily paper with rural delivery, is of great value. To read the modern newspaper intelligently requires an understanding of the laws of climate and an instinctive knowledge of localities never before so necessary. But aside from its commercial value, as an instrument of education and as a means of mental development it should hold a place scarcely second even to any of the other subjects now taught in the common school. There is no locality, be it in city or country, where one can step out of doors without coming directly into touch with facts that impress the senses with percepts that are useful in the study of some phase of this subject. In connection with the materials gathered by the actual contact with things there is also the fund of images formed by the use of the receptive imagination as the descriptions of people and regions are read in magazines, papers and books. From these and the ideas gathered from actual experience, the constructive imagination delights to build new and real views of things and places still unseen to the physical eye. Travel and direct observation are great educators, and should be utilized whenever possible when one has the mental development that makes it possible for him to interpret what he sees. Not far behind these, however, are the neighborhood rambles supplemented by library journeys that are within the reach of almost any teacher, no matter how circumscribed the conditions may seem to be. The healthy imagination and its vigorous use are healthy blessings that may be made to multiply the powers many fold. No other subject furnishes better opportunity for the cultivation of imaginative powers that may literally as well as figuratively be kept on the earth. While there is a wide range for growth in this particular, there is still so much of material reality that the mind cannot run off into the realm of day-dreams, but it can "see beyond the range of sight." It is the right of every child that he should have all the cultivation of this faculty that any and all of his school studies will give him so long as realities of sense and reason are not bankrupted and violated.

**62.—STARTING POINT.**

Every child when he enters the public school has a rich store of mental products laid away ready to attach themselves to such new ideas and experiences as show themselves to be closely enough related to deserve a welcome from the ideas already at home in the mind. Even before he enters the school at all he has a clear knowledge of the fact of change of seasons. He sees the birds come and go and knows something of seedtime and harvest. The milkman's visits, the call of the grocery order boy and the delivery boy's rounds give him fundamental notions of products, needs of these and the means of securing the things through commerce to supply those needs. The clothing that he wears and the coal that cooks his food and keeps him warm in winter, are ever present materials for his investigation. The growth of plants never fails to attract his attention. All these are his in almost any community, or if not these, others just as valuable are at hand. He has been in the geographical laboratory all his life, and he should never fully graduate from it in all his years of study. The problem in his early school course is to take him just as he is and build upon the foundation already laid, after some remodeling, a superstructure of the broader concepts of the world and its relations to human life. Too much is it the custom to ignore the child and what he has at hand as materials with which to begin and fix upon him an arbitrary system of facts not at all suited to what he already knows when his teacher discovers him. When he reaches the higher grades the recognition of what he is and knows is even more essential than formerly, and all that has gone before should be at command constantly to interpret and illuminate the new ideas that must begin to crowd in upon him. It is not lack of ideas generally that hinders the progress of the average child, but failure on the part of the teacher to utilize properly what he has.

**63.—NEGLECTING THINGS PREVIOUSLY TAUGHT.**

In a former paragraph it was suggested that too frequently the concepts previously obtained were neglected as the pupil advanced in the grades in his school duties. Not only is it often true that he is expected to learn new truth without seeing its con-

nection with what has been acquired before, but even the truth of what has been taught him is overlooked and he is allowed, if not positively taught so to think or fail to think that his later knowledge is such as to utterly repudiate the truthfulness of what he had formerly learned as exact geographical knowledge. One or two illustrations from common practices will suffice to make this point clear, and the thoughtful teacher may then extend the view and govern her teaching accordingly. One of the first things the child learns after he has laid down his fundamentals in the home geography, is the fact that the earth is practically a sphere. He gets this as soon as he is led to look at the earth as a whole. When he has taken a few steps more he is allowed or induced to forget this and think of localities on the face of the earth as though they were on a flat surface. He does not see that the Indian of northern North America, the Lapp of the Arctic borders of Europe, and the forlorn exile of the Siberian desert might join hands and each stoutly assert to his neighbor that he is facing North, and yet the circle remains unbroken. For him the snow capped Himalayas lift their heads in a direction that he thinks (if he tries to think direction at all on the real earth), names, and points out as southwest instead of directly north as the direction would be named for the pupil in Iowa. He talks of a spherical earth and practices his thinking on a flat surface. Thinking and traveling may generally be done over widely separated routes. To think and point directly over Labrador in trying to see the exact location of the mouth of the Nile or the Red Sea is entirely within reason and the truthful thing for the pupil to do. That he could travel on that line no one affirms, but that is the line of his thought if the earth remains to him a sphere as he was taught in his earlier work. He cannot travel to Mars, but he may think of the location of that planet and point directly to it in space. For practical purposes the thinking should be kept on the surface and not through the earth as by the former the line of thought is made to coincide with geographical features that thus may be kept well in mind. A teacher need not feel that a knowledge of spherical trigonometry is necessary to give her a grasp of the real conditions as to direction on

the surface of the earth, but it is well to learn from nature as shown by the Gulf Stream and from the routes of commerce wherever possible for them to use it that the shortest distance on a sphere is on the circumference of a great circle. All these points and many more may easily be learned from a thirty cent globe by means of a string by a person that will measure and think. If the earth is a sphere, then make all the teaching of geography conform to that theory, and review the old or fix it in mind by the truthful teaching of the new. As the home surroundings are used to give the ideas from which the learner may build his concept of regions not seen, so should the globe help as a symbol to the idea of the great round world.

#### 64.—MAPS.

Next to the failure to have the globe teach its lessons as it should, comes the neglect of the help that well prepared maps should furnish. In his earlier course the pupil has also been taught to make maps of the school room, the yard, and possibly the immediate neighborhood, and these speak to him of portions of the advanced study of geography in the fact that they are the representations of geographical surfaces on paper. Too often when he comes to the study of the later and larger units he thinks of them merely as they appear to him on the map, and makes no vital connection between the map and the area supposed to be thus represented. In his early experiences with the map it was a means to an end, in the later work it is in danger of becoming the end in itself. Every good teacher will make much use of the map and will not be over anxious at first about thinking the real thing instead of the map, but after there has been such a grasp of the map of the region that relations may be clearly seen, then there should be every effort possible made to have the map perform its proper purpose by holding before the mind a region with features and relations while the mind goes beyond the face of the paper to build up correct images of the locality outlined on the paper. These forms are but arbitrary symbols devised that portions of the globe may be brought to the attention at one view. The thing symbolized is always

more valuable as an educational element than the symbol invented to represent it. In notes for grades as low as the fifth grade, we find Col. Parker speaking as follows: "Put aside maps and ask questions. *Test, continually, your pupils' power to picture the continent without the presence of maps.*" Another mistake in the use of maps which should be avoided is that of putting small areas before the class without having them see the relation to the larger unit of which they are parts. Each part should be seen and imaged in its proper setting before being studied in detail.

### 65.—THE GLOBE.

A common error made by teachers in handling the globe before the class is to violate the relation of north pole of globe and the north star. Since the pupil has been taught that the north pole of the earth always points in the direction of the north star, the globe as a symbol of the real earth should not fail to enforce that truth. So far as possible the globe left standing in the room while not in use should be kept in proper relations to express real conditions. Likewise it frequently happens that in following grades after his earlier teacher has tried hard to impress upon the pupil that the earth rotates on its axis from west to east, the globe will be held before him and be rotated vigorously in the opposite direction. These are little things in themselves, but they have great value in their observance in preventing the fixing of wrong ideas or violating the truth that has been taught in former grades.

### 66.—TEACHING LOCALITY.

Sometimes the later texts in geography are criticised on the ground that by their use pupils are not well grounded in the location of important cities, state boundaries, directions of flow of rivers and similar features that compose the subject matter of the books of our fathers' days. It is true that such things are not given the prominence in these books that was formerly the custom, but they are there however. The prominence given to the climate, geographical structure, and all the natural features that contribute to the location, prominence and industries of the city does not displace the other element of its existence, location.

Since more attention is given to the reasons why the city is where it is, there is greater inducement to know of its location as an example of results coming from certain causes. The study of a river, valley or a mountainous region to learn its importance in contributing to the wants of the race gives still more excuse for making its location a matter of careful drill. It is not now a question of locating for mere memory training, but locating with the feeling that there is reason for the things being where they are. Not less of understanding the exact position of geographical features of importance, but more of an understanding why they are there, is the demand of the new text. The pupil should not only get the map location of the region he studies, but he should see its relation on the earth as to his own locality. He should feel that his lesson is never prepared while there is any place mentioned in comparison or directly the exact location of which he cannot give as to hemisphere, continent, and generally with some degree of accuracy as to latitude. It is not less of localization, but more of association of reason for the location that is needed and expected in the teaching of the present.

#### 67.—SKETCHING.

As a means of teaching accurately and quickly the points that shall be carried in mind by the pupil as to location and relation to each other and to the home of the pupil, sketching of areas, small and large, should be employed. It is not details that should receive attention but salient features rather. The area to be sketched should be analyzed at first into some simple elements that are readily seen as outlines and features of relation that the pupil may easily then put on paper with such a degree of accuracy that he will feel his work is creditable and that it expresses ideas that are seeking expression on his part. The teacher may use the board and pupils follow on paper. Pupils may be led to devise outlines and sketch areas both in the flat and relief representation as a means of showing their own concepts of regions under discussion. The class may well use the board for part of this work. The chief difficulty with this as with much of the other work attempted, is that it is put before the child in the mass of details instead of simple units that come clearly within his

grasp. This sketching should be a means for expressing his ideas which have been obtained by study of his own locality and the use of good relief and descriptive maps of the regions of the earth beyond his personal observation. In his efforts to express himself in this way his ideas will become clearer and should result not in fixing the map alone in mind, but the realities of the region studied as well or better than the map which is only a device for helping the mind to classify and grasp what is too large to be seen without the aid of some such device. The imaginative faculty should be exercised to have the real localities well in mind. "Lead them to imagine the coast as they draw it," not only sketch but think, should be the motto.

#### 68.—GEOGRAPHICAL READER.

This is an instrumentality that should not be overlooked by the teacher. If it cannot be in the hands of the pupils the teacher should have access to as many of these as supplementary and to give new matter in an interesting way as it is possible to secure. These furnish more helpful information for the cost than any other kinds of books. By their use imaginary journeys can be laid out, classes prepared for the journey and finally taken in the reality on the trip through a sensibly trained imaginative faculty. One of the evil tendencies that manifests itself with pupils and teachers in using these supplementary helps is to scatter the work and fail to secure that unity of concepts that insures the proper growth of the mind. By careful localizing and constant attention to the change that may thus be formed this may be avoided. Another injurious attitude of mind is that of looking upon new facts that this closer view of the peoples of remote regions gives as things to be regarded as curiosities rather than representative of actualities. A closer scrutiny of our own customs might reveal things that would possibly not be easily explained as outside the curious if that is the attitude that is to be taken toward what is not well understood. So far as a thing is regarded as a mere monstrosity or curiosity it is of little educational value.

### 69.—ILLUSTRATIVE MATTER.

In no other subject are there so many opportunities for collecting helpful illustrative matter with little expense as in geography. Illustrations from magazines and papers and the pictures that may be collected from the publishers of the different series of penny pictures are frequently very serviceable. The railroads and steam ship lines are constantly sending out folders with maps, pictures, and descriptions that contain much helpful matter for the use of the teacher and the class. Often from these information of particular localities may be gained that cannot be found in any of the publications for reference even in well filled libraries. Likewise the patent parts of the local papers of any community often supply things needed. In the use of these sources the teacher should exercise care that the material may be known to be authentic.

### 70.—TYPES AND CORRELATION.

Much energy and time are wasted in neglecting to use properly what has been taught in previous lessons as type forms with which to interpret similar new ideas. When mining in one part of the country or globe is well understood, all that is necessary to make it clear as an industry in other parts is a clear review of what has already been learned with such comparisons with the particular region as will show the differences from what has been studied, thus making the new clear and reviewing the former work at the same time. Everything in this subject is so naturally bound up in cause and effect or in similarity in contrast easily observed, that it is a branch that should be delightful to teach and that should yield a rich harvest of ideas from the teaching. In addition to the connection made with work in the earlier part of the study itself, there should also be points of union with the reading book and with topics in history. These efforts will not only add new interest to the subjects immediately in hand, but keep the knowledge of geography thoroughly in mind, and give the reading lesson and the historical fact real existence to the pupil. Selections from the reader can be made to re-enforce the work on seasons, localities, products and similar topics. Much that now is supposed to burden an over crowded course of study

as nature work may well be attended to in the geography hour to the advantage of the study of geography and the peace of mind of the "fad" eradicator.

### 71.—AIDS.

The books written especially to aid the teacher in this subject are many, and most of them are valuable. A few of the best are mentioned although there is no attempt to make the list exhaustive. All the late text books are very helpful, especially when studied so as to grasp the ends in view by the writers and publishers. The series of geographies lately completed by Tarr & McMurry is worthy the careful study of any teacher as works on methods on teaching geography as well as for the insight into material that should appear in the text book. Excellent supplementary help is found in the very fine lists of geographical readers brought out by the various standard publishing houses. We would mention in the way of drawing and blackboard illustrating in the subjects, Easy Drawings for the Geography Class, Augsburg; Tracing and Sketching Lessons, Gillan; Geography by Map Drawing, Kellogg, and best of this kind, for relief work, Chalk Modeling, the New Method of Map Drawing, Ida C. Heffron. Works of a more general type are: The Teaching of Geography, Geikie; King's Methods and Aids in Teaching Geography; Suggestions on Teaching Geography and Practical Work in Geography, McCormick, (two books). And another of especial value if read and studied until understood in fact and spirit, How to Study and Teach Geography, Parker.

## IV.

### History.

#### 72.—MAKING IT REAL.

Every pupil knows that the events with which his experiences have associated him are composed of the following elements. What is the action or fact discussed? Where did it take place? When did it happen? Who were the parties concerned? Why should this have come to pass? If history is to have reality to him it must show vividly the same elements. In other words, the events must live again in the pupil himself. Nation-

ality, language, modes of dress, religious ideas, educational opportunities, occupation, means of travel and communication, weapons, and the like should be revived through the quickened imagination of the learner. In order that this may be accomplished he must have a teacher that is alive to every interest and very much in earnest. The teaching should seek to create such clear pictures and arouse such feelings that the learner may be able in the highest degree possible to put himself into the time and place of the event under discussion. History, as every other subject, must find its starting point in the present conditions and attainments of the child. The discussions, the elections, the laws, all experiences of the present must unite to furnish him the key with which he is to interpret the events that are remote in time and space. It is well to have the learner realize that the written records give but a small fraction of the actual deeds and experiences that have contributed in the past to make the present what it is. Therefore, from his own experiences and the few facts recorded he must learn to see beyond the present into the past through imagination, judgment, and reason. The tariff and financial problems as they now present themselves and now disturb the public mind should be the means of his understanding the agitations and feelings in the "thirties." The question of the negro in the south to-day should speak to him of the importation of the first negroes and the beginnings of slavery, and of the great civil war that grew out of those early crimes. This should broaden the mind and lead the pupil into the habit of thought that seeks to know all that may be known before conclusions are drawn. It should develop a spirit of logical conservatism that prevents hasty conclusions from insufficient data. The pupil should keep himself free from harsh judgments due to the ideals of his day differing from the standards set up and held in former days. Persecutions in New England may not be defended, but they may be explained by the fact that such things were the custom of the day.

### 73.—THE TEXT-BOOK AND OTHER DEVICES.

1. Text-book. However small this may be it is supposed to cover the entire ground. The parts may not be well balanced. The author may have certain tastes or certain experiences that

have led him to attach importance to one period above another in undue measure. He may look too earnestly at the social, the political, or the industrial side of the subject. He may sacrifice fact and useful matter for the story of doubtful origin with a view to making history interesting. All these conditions the teacher should seek to overcome by a careful study of as many texts as can be secured. The interest in history must come in large measure from the fullness of the teacher's knowledge and her love for the subject, rather than from any particular text-book treatment. The arrangement of topics is generally in chronological order. This is probably as good as any other arrangement for the book, but the teacher should seek to readjust topics to make geographical units, or connect with important events others closely related although not nearest in point of time. In laying out work and making assignment of lessons it can not be done by the number of pages of the text. Sometimes in a very few pages many important events demanding a very full treatment in study and recitation are found. In other cases an extra number of pages may be taken as the unit of study because of the subordinate nature of the topics treated. A proper balance must be made and right ideas as to importance of items fixed in minds of pupils by the emphasis of time given to them. Units are to be observed instead of finding the lesson limits in the pages given. All maps of the text-book should be properly studied and used. Pictures given are too frequently ignored. Pupils should acquire the habit of looking upon pictures as an aid in forming correct ideas of the event discussed on the printed page. Whenever possible the references given in the text should be looked up and the class should at least become familiar with other sources of information even if these can not all be used in preparing the lesson. Through a collection of text-books a body of the very best suggestions to teachers and pupils may be acquired. If these are properly investigated and not blindly copied they may lead to many original ways of doing that will add a new interest to the work.

2. Other devices.

(a). The larger maps for the wall, the outline maps for filling up with routes of exploration, important localities, and the relief map are always of advantage. Maps showing territorial expansion, the important campaigns in the leading wars, and com-

mercial development should be prepared by the pupil. Back of all this map work the constant effort should be made to have the learner see a real country as the scene of the events studied, and not stop with the representations on paper. (b). The large and small charts showing parallel movements in different localities at the same time, prepared by teacher and pupils are another constant aid. Growth in railroads and other industrial conditions may be readily shown by charting and coloring. Related topics may be put upon a large chart for reviews and drills and preserved from year to year. A chart of the tariff having been in use four years is still valuable every time a new class goes over the history work. The section number of the text used is beside each topic on the chart so it can be readily used in assigning readings on this topic, both in the advance work and in review. (c). A collection of pictures has its value in this subject as well as in geography and other branches. The firms supplying penny pictures are now beginning to furnish collections for classroom use in this branch. Such collections are within the reach of any good teacher of the subject. (d). All relics that may be found in public collections and that pupils may bring from their homes should be utilized. Paper fractional currency, confederate paper money, stamps, original copies of public documents are enough to suggest things that may be used to talk more forcibly to the pupil of other days. (e). In connection with this the suggestion should be made to have all material from original sources that it is possible for the pupil to handle intelligently used. This should supplement his text-book and render it more vivid. There is probably too much uncertainty of the power of teachers and pupils to attempt this plan of historical study to the exclusion of the well written text. The good text-book in this subject as in all others furnishes the starting and returning point of the pupil in all his side excursions for broader investigation. Life is too short to waste the pupil's time having him try to become a writer of his own historical text-book from original documents. These may make clearer his views and consequently should be used, but he needs a guide upon which to found his investigations. (f). The pupils should in many cases keep note books in which to record answers to questions of their own formulating,

and to such as the teacher and the nature of the subject may suggest. These note books should not be made up of quotations from the texts handled, but should be the expression in the pupil's own words of the ideas he has obtained from his side readings. They may contain outlines of work made out by himself and discussed in class. It is questionable whether outlines made by the teacher and dictated for copying into note books are of much value. Pictures from papers and magazines may profitably be put into the note books. An occasional clipping from a newspaper should find a place there. Let the book be a means of collecting and fastening historical material in pupils' minds, and not an end in itself to be judged alone by the pages filled. (g). Aside from the literature that is purely historical there are the large collections of writings of standard poets and prose writers that have value as side lights and stimulants to the historical investigations of the young student. These should be named and as many as possible read and discussed. It is through these and the other side excursions that the teacher should seek to arouse the taste for history in connection with the text book rather than by having a text-book padded with stories.

#### 74.—HOW TO WORK, DRILLS, REVIEWS.

1. A general view of the ground to be covered should be taken with the class at the opening of the term's work. This may be done from table of contents and from an examination of the pages of the text. It is well to have pupils recognize how many pages are devoted to the various leading topics. Each of these collections of pages may stand to the child as a small historical treatise on the subject at the head of the list. A rapid view of chief places and some of the leading characters will be valuable.
2. The lesson plan on the history lesson or lessons given on an earlier page suggests in outline that a careful assignment is necessary in order that pupils may form the right habits of study. There should be suggestions made that lead to attention to all points in a manner commensurate with their importance. Certainly the Charleston earthquake is not of equal importance with the civil service reform movement, yet pupils often study them with equal emphasis.
3. Germ ideas should be recognized and carefully taught so that they may be easily

recalled when their fruits in later years are reached. "To the victors belong the spoils," can not be made real clear to the pupil as a dangerous practice in governmental policy, possibly, but the fact of its introduction into our government should be recognized and the evils noted from time to time in the later study until it resulted in the civil service legislation of the closing years of the century. The Kentucky and Virginia resolutions, the Hartford convention and nullification should stand related to secession. The origin and continuation of political parties due to difference of interpretation put upon the constitution should be seen. The fact of the change in view sometimes wrought by assuming power and responsibility is well illustrated in Jefferson and the Louisiana purchase and the Embargo Act. 4. When the constitutional convention is under consideration is a good season for a study of leading features of the text of the constitution. The right to free speech and a free press there guaranteed should be seen and the Sedition Law of the administration of the elder Adams compared in its aim with the license assumed by the anarchistic element of our population to-day. After the sad experience through which this nation has so recently passed, it is well to stop and consider whether we are not giving undue weight to the idea and allowing utterances to pass unchallenged that the constitution in no sense guarantees one the license to make. A study of the election of eighteen-twenty-four gives a good opportunity to refer to the method of the election of president. Parts of Washington's farewell address, Lincoln's inaugurations, Gettysburg speech in full, some of the patriotic utterances of Webster should be used. These are but suggestions of lines that should be followed. 5. Much of the discussion made in class should be through topical recitation. Frequently there is too much questioning done on the part of the teacher. The pupil should do the talking. Have pupils prepare lists of written questions to be used in recitation period. Brief debates may be arranged. Written exercises may be given to be prepared and brought to class and many written exercises of a few minutes length should be done by the class in recitation periods. Some of the formal language materials should be gotten from these written exercises in history. 6. Much attention should be given

to the biographies of prominent persons. Comparisons may be drawn and the pupil asked to state what he admires in the characters and why he makes such a choice. This results in habits of right moral judgment and leads eventually to imitation of the good in the lives of the persons studied. Comparison of Jackson and Lincoln shows two men of very strong will power. They were very different men, however. The one was a hurricane overturning every thing before him through his indomitable will, the other was a mighty, placid Mississippi finding his way among rocks and around obstructions, but eventually reaching the goal of success with less destruction and ever so much more power than his predecessor.

7. The teaching of the campaigns in the revolutionary war and in the civil war is probably of value, for they show plan and design. The operations around Boston, the struggle for the Hudson river region, the retreat across New Jersey; winter at Valley Forge and flight of British across New Jersey, and the war in the south show in brief view by campaigns the movement of this great struggle. In the civil war, beginning in 1862, there are two or three great movements that can readily be traced by years. War in the west between the mountains and the Mississippi; the war in the east in Virginia, Maryland ,and Pennsylvania; and the blockading of the southern ports.

8. There is a great deal of confusion as to the importance of the learning of dates in history. Every good teacher of history should set his face decidedly in favor of the careful mastery of a number of these as guide posts through the wilderness of facts that would otherwise confront the learner at every stage of his progress. By consulting the very latest and best common school texts it is found that from twenty-five to fifty dates are suggested to be well learned. Of course with every date learned there shoul be associated the persons, the event, and the place. Learning dates without these features is almost a waste of time. For fixing events well in mind pupils should make topical outlines of facts recently learned. These should grow larger and include more facts as the work proceeds until at the end a good outline could be written by the pupil to cover the entire period of our history. Another means is the written summary not in outline but in form of brief statements making a brief

essay of connected points on the period of history studied. Grouping important names, important events, and prominent places in series is another means of fixing the desired materials in the mind. The more varied the associations and the more frequently they are touched the richer the content of historical matter the mind has for its effort. 9. Reviews. A common way and one of value is to take up the points as they come in order of time. This is a chronological review and has the time element for its unifying principle. To make a list of important names of persons from the earliest times to the present is another means of review. This has biography for its connecting chain. Another helpful way is to make geographical units. New England, Boston, New York, Philadelphia, Washington, Virginia, and the like will suggest how this may be done. Still another and one of the very best is to take an important topic—the tariff, or slavery, or growth of territory, and trace it down to the present with the leading events which it influenced or which modified it. Here some of the chart work mentioned before is helpful. Yet another means of review is by use of the index. Topics may be taken by their relations in nature, or time, or the index, right from the beginning may be used by advanced classes, taking a general review, locating each event in proper time and place as it is found without regard to unity of thought. If proper associations have been made in the teaching these reviews will be a pleasure rather than a task.

## V.

### Arithmetic.

#### 75.—MECHANICAL AND MEMORY WORK.

I. Power and skill in the fundamental operations are acquired mechanically and through memory development. This work should be done early in the course. It should be made permanent through constant drills and repetitions until the pupil has perfect mastery over these simple tables and operations. The interest may be aroused and attention sustained through the child's inclination to do things and his desire to test his strength continually. The devices used should be varied frequently, but the practice given should be constant. Books and papers and the

teacher's ingenuity should suggest variety enough for the work to insure continued interest. All pupils can do this drill work. It is in no sense the solution of problems. Proper drills at this stage of the work will save much time in following school days and be a blessing and comfort to the person throughout life. Drill, and continue to drill, but give the operation life by change of devices and the life and energy thrown into the work. 2. In line with the mastery of the tables and drills in the fundamental operations come the ideas of factors and the ready recognition of factors of smaller numbers. The squares and cubes of the digital numbers may be learned. Naming odd numbers, concrete numbers, abstract numbers, is now worth while. In teaching all these fundamental and secondary operations, as in fact all first presentation of new operations, the numbers used should be small and within easy grasp of the class.

#### 76.—TERMS OF FUNDAMENTAL OPERATIONS.

The terms used in fundamental operations should be understood and thoroughly learned. All the operations of arithmetic are founded on the handling of addends and sums, products and factors. These should be well understood and their nature and definitions clearly in minds of pupils. Addition has addends given to find a sum. In subtraction a sum (minuend) and one (subtrahend) of two addends are given that the other addend may be found. Multiplication furnishes one of a number of addends (multiplicand) of the same size, the number of which is named in the multiplier or other factor given. These make the factors from which the product (sum) is to be obtained. The process of division is based upon a given product (dividend) and one factor (divisor) from which the other factor may be found. It is a short method of making many subtractions of the same number, it is true, but to see it as the reverse of multiplication is probably all that is necessary for the ordinary class. These relations of the terms in one process to those in another with the names changed because of the new operation, should be clearly seen by the learner. Illustration:—Sum, in addition, becomes minuend in subtraction, product in multiplication and dividend in division. The pupil should trace these relations in parallels in

that way using all terms. At the same time these terms are taught and used the principles belonging under each operation should be illustrated, when possible, and *all thoroughly learned*. The principles learned at this stage should form the foundation to prevent careless and incorrect statements and work in later processes. In all advance work pupils should be able to recognize what operations and terms are applicable and see that no principles learned in the past are violated. "Multiplying both dividend and divisor by the same number does not change the quotient." This should help and should be used in fractions as the basis for the statement that, "multiplying both numerator and denominator by the same number does not alter the value of the fraction." In division of decimals the same thing is used when dividend and divisor are multiplied by such a number as to make the divisor a whole number before dividing in order that there may be no difficulty in placing the point in the quotient. The same principle appears again in ratio. Very frequently teachers and pupils make statements as follows: "Forty sheep multiplied by three dollars equals the cost of the sheep, or one hundred and twenty dollars." "Three feet multiplied by two feet equals six square feet." Keeping in mind the principles would show the absurdity of such statements and prevent their use. Why have these principles at all if they are constantly violated in this way in the later work?

#### 77.—POWER TO IMAGE MATHEMATICAL MAGNITUDES.

The author of a late series of arithmetics has stated in a recent address some pertinent thoughts on this phase of arithmetical work. "The really difficult thing for the pupil in mathematics is not figure manipulation; it is not the seeing of the relations of magnitudes. It is the imaging of the magnitudes to be compared. What shall we do about it? Confront the pupil oftener with objects of sense? Not necessarily. Rather lead him oftener to image. This work must be begun in the lowest grades. The only way for the pupils to learn to image is by imaging. The time to begin is immediately after he has perceived (seen or felt) the sense object." This work should begin in actual measurements and comparisons of sense objects. The step next to this in

developing this power is calling up in memory the images of objects measured and comparing these images. The final power, and the one for which the others are preparatory steps, is the ability to create imaginary measured magnitudes and compare the images. In the first of these three steps many objects will be used. Fewer objects will be needed as the pupil grows older. But some must be used, even at the last of his public school course. Pupils fail constantly because of inability to image objects, magnitudes, and relations that their problems present. Illustration:—An oblong three inches by four inches has \_\_\_\_ square inches. The perimeter of this oblong is \_\_\_\_\_. Unless the pupil images an oblong of about these proportions and sees fully the shape and size his work is a mere rote process and has little value. Such work is not to be of the mechanical nature for fixing tables of operation in memory, but for developing mathematical power. A large percentage of the failures in arithmetic is due to lack of this imaging power.

### 78.—A FEW SUGGESTIONS.

1. Reading a problem understandingly is practically solving it. When the pupil has read his problem and can put the statement of the fundamental elements with the proper signs in the order that will bring right results when the operations are performed, he has solved it. The remaining work is of the mechanical kind that he learned before he was able to do much problem work. In this matter of solving problems it is not always necessary or desirable that the mechanical work shall follow immediately after the solution. Sometimes the statements may be preserved and given some days afterward as a drill in mechanical operations from "indicated work." Numerical answers are not be the only result that the pupil should think he is to reach. The proper statement of the elements and relations in the problems are to concern him most of all. It is in this process that his reasoning powers are trained.
2. The former statements lead naturally to the question of forms of analysis. In times past, or possibly not yet fully past, there has been a waste of time and energy over long and tedious forms of analysis. There should be analysis and good statements of each step so

that the pupil may acquire the habit of thinking and stating definitely the product of his thought. This is training in languages as a means of better work in arithmetic, since it is the formulation of arithmetical thought in symbolical and verbal statement. As an illustration of a brief but good analysis a problem and its analysis are taken from The New Practical Arithmetic, by A. W. Rich. This is found on page 163. "A man paid \$750 for a house, which was 24 per cent. of what he paid for 160 acres of land. What was the cost of the land per acre?"

**Solution:—**

24 per cent. equals the per cent. of the cost of the land in the cost of the house. \$750 divided by .24 equals the value of the land, or \$3,125. \$3,125 divided by 160 equals the cost of the land per acre, or \$19.53 $\frac{1}{2}$ .

This goes directly to the point and is based upon operations with which the pupil should be entirely familiar, thus precluding the necessity of longer and more complicated statements. It will be noticed that the portion after the word "or" in each statement is the numerical result obtained from the performance of the mechanical operations indicated in the early part of the statement, which is the solution proper.

3. When the pupils are found to be in difficulty it is not explanation on the part of the teacher that is needed, but simpler oral work of the same nature and recognition of past work and principles that may have slipped from the mind. A little drill of this kind will generally lead the pupil up to his difficulty in such a manner that he will overcome it without farther effort. It may be well here to suggest that oral work should lead up systematically to the more difficult written work. The written work has no new elements, but is simply the manner of handling numbers that stand in the same relations as those of the oral problems, but are too large to be manipulated without the aid of the pencil. There is oral and written arithmetic, but not mental and written as is so frequently mentioned.

4. There should be reviews of special topics from time to time, but they should be *new* views from other matter and should make the earlier work clearer because of the later ideas that have been seen. However, the most profitable reviews are the daily recalling of principles and back operations upon which the advance is

naturally based. Having meanings of indicated operations and problems stated is a good way to keep the past work fresh in the mind. An excellent review and at the same time a device that clears up ideas, is to have problems written by the pupils. The number story of the primary school should never be outgrown, but should be used both in the advance work and in the reviews.

5. The blackboard is a convenient and useful device in the school room, and is very helpful when properly used in the arithmetic recitation. It is to be used *sometimes* for whole class exercises, but more frequently there should be but one pupil at the board. Let one put work on board while others work on slates or paper, and the work on the board can be used for comparison, and if nothing needs discussion another pupil may go to the board and a new problem be solved. In this way many problems may be solved and all or nearly all pupils can have board work. Until the teacher can manage the class very well the board work should not be attempted by having the whole class at the board at once. Even well managed classes in the grades waste much time when large numbers are sent to the board too often. The teacher should use the board a great deal in furnishing supplementary work that will lead the pupil over his difficulty. The board should be used to make clear new ideas or words by drawings and by writing the word. New words should first be presented through voice of teacher; but they should also be written on the board, pronounced by pupils, and finally written by class.

6. There are three parts in the pupils' arithmetical work, the mechanical processes, solution of problems, and explaining why processes are conducted as they are. In the public school there is not much time for the third one of these divisions. It matters little why there is "borrowing ten" in subtraction, why the product is the same in kind as the multiplicand, and similar explanations that are frequently demanded. There is no explanation of the pupil's problem necessary when he has once written his solution. The solution itself shows what is meant in each step. The old way of sending entire classes to board and giving each one a problem from the list assigned for study, having each take his seat when he has finished to wait for all to finish; and then have each "explain" his problem belongs to the days of the hand sickle

and the corduroy postal route. The lesson of this kind should be brought to class prepared on paper. One pupil may name the first step, another may read from his paper how he took it, another gives the next step, and so on through the list. Problems from outside the lesson should then be solved, having one at the board and others at work on paper. Time is wasted on non-essentials very frequently, and pupils sent out without ability to solve problems and do the mechanical work accurately and with proper rapidity. 7. There are superstitions and mistaken ideas about difficulties that never should be fastened in the minds of pupils. A few of these are fractions, longitude and time, interest, metric system. Fractions may be presented in such a way and so related to the fundamental operations that all terrors are avoided. The trouble with longitude and time is not one of arithmetic, but rather that of weakness of geographical ideas. Consequently this is a topic that should not be presented until mathematical geography has been well taught. This topic is a combination of geography and the operations of denominative numbers. There is very little that is new in this division of arithmetic and all difficulties disappear if the geographical ideas are clear and the pupil can manage denominative numbers. In the calculations of interest the greatest difficulty is manipulations of decimals and denominative numbers again. The point claimed here, is that there is little that is new in calculating interest, but that previous work properly understood will remove most of the difficulties in interest. Another illustration of a prejudice that is too prevalent is the regard in which the metric system is held. It is not a difficult system to teach, and when properly presented with our money system, our system of decimal notation, and with decimals proper, becomes easy and interesting. A shade stick, some rulers made from the top of a crayon box and other simple devices, may furnish all the material for teaching this system effectively. The names are not difficult to use if the thing named is known. Meter, decimeter, and others are fully within the grasp of the pupils as soon as the length named is seen fully by the pupil. Here is a good illustration of the necessity of presenting the thing before the word is given. The metric system is worthy of attention; it can be taught and should be taught. Instead of

taking extra time it may help in applying decimals and thus make the teaching of this part of fractions more effective. These illustrations are given merely as suggestions of the little that is new in any particular division of arithmetic, and how closely all new topics are related to what has been presented earlier. Instead of cutting out so many topics in the arithmetic, as it is sometimes proposed to do, time may be saved by properly relating the new to the old and clearer views and more power attained by retaining all topics since in the main they furnish so much application of old knowledge.

## VI.

### Physiology.

#### 79.—THE BODY.

This subject is usually presented to the pupil under three distinct topics—anatomy, physiology proper, and hygiene. The first of these deals with the mechanism or structure, the second, with the functions or work of the different organs, and the last with the preservation of the healthful conditions of the organs and in a simple way with the restoration of moderately diseased parts. The problem confronting the teacher is to find the point of contact best adapted to the class in taking up the subject. There is a range of topics found in the body itself all the way from the almost senseless cell to the most highly developed physical creation on the earth—the human nervous system. Between these extremes lie all the accessory organisms that make possible the existence and continued life of the nervous system, which is, after all, the real man so near as any thing physical can approach real soul life. The scientifically logical treatment would probably begin with the cell and trace the development of the organs by the grouping and modifications of these cells. This may not be the pedagogically logical thing to do, however. In the lower grades a study of the simpler notions of frame-work, muscles, digestive system has probably been made through their purposes as shown by the work they do. When the class approaches the higher grammar grades a new point of approach may profitably be taken. The cell—and it is as easily made clear to a pupil through use of the common egg as many a distant fact in geography or history

—may be briefly discussed and the tissues of the body shown to arise from arrangement and modifications of these. Brick and mortar may remain the same and yet make walls, pillars, partitions according to arrangement for the purpose of the thing constructed. These may be modified, as harder brick, particular changes in mortar for different purposes. So it is with the cells, and so the pupil may readily be led to see for himself that cells may do different work according to the purpose of the organ which they combine to form. This gives a new and fresh view to the pupil and puts the work on a higher plane than it had held before.

#### 80.—THE NERVOUS SYSTEM.

After the preliminary view of the cells the real starting point should be through a general view of the nervous system. This is the one system with which the conscious life of the child is most closely in touch. It is the system that brings the real child-mind and soul into touch with the outer world of the senses. It is the system for whose existence and continued life all the other systems of the body have been created. It is that part of material creation that is nearest the spiritual world, and it is in that world that the child's real existence is found. Hunger, pain, pleasure, fear, punishment, satisfactions of the senses are all manifested to him through this wonderful mechanism. It is the wonder worker of the human body. He feels and knows physical effects on his body by its operations. In the treatment of this part of the study the teacher may make it as interesting and inspiring as the childhood tales of fairy land. Since the pupil is so rich in experiences through this system it is the proper place, in higher grades at least, to approach the study of the entire subject. Not the detailed study should be undertaken here, but a general view of its nature and functions should be seen. How erroneous to teach a pupil of the lower systems first and leave him to think of their operations as due to some mysterious, unexplainable property within themselves when it is the nervous system that makes them act as they do. There are probably many teachers who have wondered why muscles could contract and relax in that mysterious way that is left so uncertain in the mind when all mention of the nervous system in this connection is

avoided. The same may be said of all the other lower systems of the body. The writer has for several years felt that a change in point of view in teaching should be made here. In talks with teachers of the subject he has advocated a change in the order of presentation of the ordinary text in accordance with this view. Within the past few months a high school text-book\* on physiology has appeared which every teacher is advised to secure and study, to get a clearer view of this mode of treatment than can be presented here.

\*(Physiology for High Schools,—Macy-Norris. American Book Co.)

#### 81.—PURPOSE THE UNDERLYING IDEA OF ORGANS OF THE BODY.

In treatment of the structure of the skeleton, the muscles, the digestive system, the respiratory organs, the circulatory system; the nature, location and composition of each should be seen through the purpose it is to fulfill. (Read Philosophy of Teaching, Tompkins, pp. 162-169.) All these parts are what they are because of the work they do for the body. The fuller discussion of the nervous system should proceed in the same way. This leads into the higher realm of training, forming habits and even to the fundamentals of psychology, which is not, after all, so abstract a matter as some wordy writers would have us believe. When the abundant experiences of the pupil are taken into consideration it may not be extreme to say that a sensible, brief treatment of some of the most common phases of mental and spiritual life would make a profitable close to the pupil's high school course in following his study of physiology. At least the end and purpose of the body as a whole should be determined in the ultimate operation in giving mind and soul all the development possible. This would then lead to a sensible discussion of the uses and abuses of stimulants and narcotics with a firm basis for a stand against the misuse and strong advocacy of the grave dangers in most cases of any course but one of total abstinence.

#### 82.—ILLUSTRATIONS AND DEVICES.

Good charts are always valuable in the teaching of this subject. Blackboard sketches by the teacher and drawings made on

paper by the pupils are essential aids. The stencil and the enlarging apparatus mentioned on an earlier page may be used to advantage by the teacher. The pupil should be led to think of these various parts as existing in his own body and not remember them from chart, drawing or book alone. Bone and muscle should be brought to class from home and used as illustrative material. This of course is lifeless and shows structure only. A heart, an eye, the lungs from the meat market if properly handled make good illustrative matter. Care should be taken to present them in the most tactful and least offensive way, so that sensitive children may not be nauseated or shocked. There is not a great deal of opportunity for it and probably it would not be wise to have dissections of entire animals in the class room of the public school. The preparation of such an animal as the frog beforehand so that relations of organs may be demonstrated to class in the recitation may be well. The illustration of the nervous system can be made in this way. A skeleton of a small animal of this kind may be prepared to do good service ,and it is no greater step for the constructive imagination to see the human skeleton from such illustrations than it is to see the continent and globe from home geography, modeling board, and maps. Finally the entire group of systems making the body should be seen as a unit, each working with the other and for it when necessary, and all contributing to the nervous system which in return protects, wrans, and guides them as the master mechanism of the body.

## VII.

### Language and Grammar.

#### 83.—THE MECHANICS OF WRITTEN WORK.

"It is quite possible that too much stress is placed upon the original written language work of the ordinary school. When one stops to consider the burden that is placed upon the mind of the ordinary child as to what he must keep in mind in order to prepare a page of passably well written English, he is ready to assert that there is waste of effort and probably injury to come from the practice of so much written work as specific language training. A brief examination of the subject of technical knowl-

edge necessary to write acceptably reveals quite an array of things to be remembered. 1. At the very outset the learner is met with the difficulty of capitalization. This is not so very far beyond his comprehension as to the beginning of sentences, but when he must remember to recognize every proper noun, names of the month, appellations of the deity, adjectives derived from proper nouns, and things personified, with other words that religious and political prejudices and local pride may fasten upon him, the burden is by no means light. 2. Next may be mentioned that bugbear of all teachers of English, punctuation. In spite of the effort to have it understood, in a moderate degree at least, every pupil soon becomes a law unto himself in the matter once he has escaped the eye of his teacher. With the marks for the close of the sentence he can do reasonably well, but when it come to marshalling the comma, semicolon, colon, quotation marks, hyphen, dash, apostrophe and their kindred into line he does not do it, but throws himself upon the intelligence and good humor of his correspondent for charitable interpretation. In the use of abbreviations the pupil finds himself not only bothered as to the right form to employ, but also he is put to no small trouble to know just when to make use of the abbreviation and when to write the word out in full. 3. Every teacher knows that pupils always need all the drill that it is possible to give them in spelling, and that when the ordinary pupil's mind is entirely given to the spelling exercise there are still many words that baffle him. In his written language work he not only struggles with the spelling of the ordinary forms of words, but he must be able to write the possessive forms both singular and plural, comparative forms of adjectives and adverbs, tense and personal forms of the verb and the other variations of the language. 4. The proper placing of the heading or title, observing to leave a margin, indenting paragraphs, right division of words at the end of the line, attention to neatness of writing, all combine to make the difficulties more perplexing. Yet these things can not be ignored. 5. Another of his serious difficulties is to get the right sentence sense so that he may recognize readily where the sentence closes and the new one begins. He must arrange the words in the sentence in the order that will give the best effect. After this he





GEORGE N. BRIGGS,

*Carson, Iowa.*

CLASS 1893.



DANIEL R. PERKINS,

*Carson, Iowa.*

CLASS 1895.

*State Normal Graduates as Teachers in the Philippines.*

must put the sentences in the paragraph in such arrangement that the result will express properly the ideas it is desired to convey. Over and above all, he must find and carry the thought as he writes. 6. A full realization of these difficulties will lead teachers to change the manner of giving language training in such a way as to reach better results with less overtaxing of the pupil's powers. Much of the written work now done is an injury to the child and has no value for the teacher excepting to show where the pupil is weakest that the proper steps may be taken to reach most directly the defects revealed. Rewriting is not necessarily the remedy that should be applied. As in spelling make it reasonably certain that he can do the work correctly, and then set about having it done that way until the right habits are formed. Every effort should be made to prevent the pupil from writing incorrect papers.

#### 84.—HOW TO WORK, DEVICES.

1. The first thing to get out of the way is the difficulty of having nothing to say. By means of oral discussion that is intelligible to the class and inspiring so far as possible, the pupils should be made to feel himself so full of the thought that he is bubbling over as it were with desire to express himself. The effort should not be, as it too frequently is, to prevent the pupils from talking, but rather in all subjects to get them to talk freely, but their thought should be guided by judicious questions and directions to the most effective ends. It is well to remember right here that the thoughts and language used are those of the child, and he should not be bothered too much and too persistently with adult phraseology and the conventional forms of the literary world. A conclusion, then, that the thoughtful teacher will reach is, that there should be a great deal of oral work to precede the written, and that the thought should be so familiar to the pupil that he feels himself full of the subject and finds thought knocking for expression instead of having to coax it into existence through halting, half-formed sentences. 2. Another means in forming the right habits of expression is to be found in the correct copying of standard literature that is within the reasonable comprehension of the class. The purpose here is to give oppor-

tunity to form the habit of doing the mechanical part of written work properly without sacrificing thought to the extra burden of its invention while the pupil is struggling with the form of expression. Systematic study and committing of excellent literary selections should be followed. 3. Good stories well told will stimulate the thought of the pupils, not for reproduction alone, but so that they will be ready and anxious to tell and later write out similar stories that they have read or that are formed from experiences coming under their own observations. Pictures in the language books, in readers, in geographies and other books and from the art study work and educational journals should be used all the way through the grades to arouse and awaken pupils to wish to talk and write. A language book issued recently for use in first years of high school work has twenty-six pictures in it, either to illustrate the thought of selections given, or to be used as stimulants to the pupil in his attempts to write. Such use of pictures is to be commended. 4. For the written work which is to be the expression of thought in the pupil's own language the reading, nature study, geography, and history, should furnish abundant materials. Before closing this topic a suggestion as to corrections of the language of the pupil, oral and written, is in place. It is but reasonable to see that severe criticism will defeat its own purpose in making the pupil self-conscious, and thus impeding his thought and consequently injuring his language. Suggestions in class in the way of criticism should come after the pupil has finished speaking. Sometimes the pupil might then repeat the correct form for the sake of the language training pure and simple, but while he is speaking there should be no sign of recognition of incorrect language indicated by teacher or pupils. If possible the pupil should be led to make the correction without the mistake he made being repeated before the class. Pupils should be kept on the alert for mistakes, but they should never repeat them but give correct form when offering their criticism. Written work should be properly criticised. At the risk of being misunderstood the writer ventures to suggest that there is probably as much harm done by over criticism as by under criticism by teachers in developing the language of public school pupils. A quotation on this line is given from page

224 of "Thinking and Learning to Think," a book written by N. C. Schaffer, Superintendent of Public Instruction in Pennsylvania. "The current of thought is frequently interrupted by drawing attention at the wrong time to mistakes in grammar and errors of pronunciation. The proper time for such criticism is after the movement of thought has reached its goal; and even then the critic should not call attention to too many defects at one time; otherwise the effect will be to discourage and bewilder the pupil. The stream of *thought* is the most essential thing in writing, speaking, and oral reading." Language cannot be taught effectively as a thing separate and apart from the thought which should be under and through the form of expression. Improve the thinking and then improve the expression by perfecting the essential things first.

### 85.—TECHNICAL GRAMMAR.

1. Inductively the language work from third and fourth grades up should be leading into a knowledge of the simple elements of the sentence. These are named by their proper terms from the first, thus avoiding the necessity of a change in name when grammar proper is taken up. In the higher grades it should be clearly shown the pupils that it is not the words used that are real subjects and predicates, but rather the ideas of which these words are the signs. From his own written work the pupil should see that he uses words to express ideas that exist in his mind, and that the thought he desires to express determines the words he chooses and how he shall relate these in his sentence. This leads at once to what many teachers fail to have their pupils see, viz.: that all parts of speech are put into their proper classes through their use in sentences, and that the use of a word in a different sense may take it out of its class for a time. The teacher who kept an academic dictionary at hand and determined disputed points in parsing in his grammar class by the classification there given, certainly failed to have his pupils see this distinction in determining how to dispose of individual words as found in particular sentences. Very careful thought analysis of the sentence will help the learner over this difficulty. Some diagramming is helpful as a device to vary the work, but when it

becomes the hobby and end in sentence analysis there can scarcely be a more successful thought killer than it is. 2. The examination of any good text will show the thoughtful person that the author has tried to present difficulties singly. Many teachers persist in teaching too much at once. Things that should not come for weeks yet are taught because they are related. Let the relation look backward instead of forward for the pupil. Teach him what is now suggested and when the more complete topic is reached call up what you had previously taught. Do not try to teach the writing of plurals and the possessives in one lump lot. Separate difficulties. Single word tenses of the verb should be taught first and then the phrase forms built up singly, carefully showing the power and use of the auxiliaries used. "Shall" and "will" should once and for all suggest future time whenever either is seen. "Have" and "had" speak of perfect tenses, and "may," "can," "might," "could," say to the eye potential mode. These illustrate some of the difficult places over which poor teachers pass to rapidly and lightly. Another illustration of demanding non-essentials is to have the pupils analyze the entire sentence when the exercise is in the early application of his idea of subject and predicate or selecting adjectives, or nouns, or verbs. In such exercises when all pupils have books he should not waste time reading sentences even but go at once to the point for which he is looking. 3. Language is the medium for the communication of thought. When thought is conveyed to a mind the condition of that *mind* is permanently changed. The language is varied and words signifying modifying ideas are employed simply to produce a modified condition of the mind to be reached. The fundamental condition in language and grammar teaching is the recognition that the modification is in the mind addressed and is in no sense a modification of the word (excepting in the occasional inflected forms) or of the object symbolized by the word. It is the concept or product already in the learning mind that is modified by the new ideas presented to this mind through the new symbols of words, phrases, clauses, sentences, and paragraphs.

Boat, a boat, the boat, new boat, painted boat, green boat, long boat, beautiful boat. There are as many different ideas sug-

gested to the mind as there are different expressions in the list. The word "boat" is not modified. Further, any one, or in different sentences, all of these expressions might be applied to an individual boat and the boat itself in every particular remain unchanged. In teaching language and grammar the thing to concern the teacher is to have the pupil realize the power and function of the word or expression through the modification that he recognizes is made in his own mind by its use. Starting from this and keeping it in mind without trying to force the pupil to tell in every particular *how* he knows, will enable the teacher to reach out and lead the class to see "sense" and power in grammar where before every thing was arbitrary and uninteresting. Language and its purpose existed long before text books did. It should be taught from its own nature instead of the too close reliance upon the statements of the text book.

## ORGANIZATION, MANAGEMENT AND DISCIPLINE.

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### I.

#### Organization.

##### 86.—ORGANIZATION IN GENERAL.

No enterprise requiring the co-operation of different persons or groups of persons can succeed without system. Establishing this systematic relation is known as the process of organization. The school is an organism with separate parts each contributing to the purpose for which the school itself is established. The fundamental elements in the school are teacher and pupil. It is to bring these into personal contact for the teaching and training of the pupil that it as a formal institution exists. All other factors in school organization are merely accessory to these two and are for their convenience and economic advantage. Wherever a learner and a teacher come together, there a school exists in a primary sense. School laws, taxes, funds, school officers, school property, parents, and superintendents when not teaching are parts of the organism more or less remote from its immediate work, but none the less real and necessary in consequence of their distance. The immediate parts and those always in view are, teacher, pupil, and subject matter or course of study. To secure the proper co-operation of all parts near and remote requires no small degree of skill and tact. It is from this side of the teacher's or superintendent's efforts that the term "good organizer" or "poor organizer" is applied. To organize—to establish organs for certain purposes and set them to working harmoniously for the good of the entire body—does not lie entirely within the province of the teacher, but he has much to do in stimulating and bringing closer together those already established and in securing the operation of powers lying dormant. Visitation days, mothers' meetings and similar efforts are illustrations of this fact. Before leaving this topic the school itself as an organ in the larger organism, known as society, demands

brief mention. In modern thought it is the place and occupation set aside to aid home and church in the process of leading childhood and youth from the real boy or girl of the present into the ideal manhood or womanhood of the future. To meet the demands thus created and supply good, law-abiding citizens the organization of the school has a function distinctly its own. Within itself it should be such as to train the pupils into habits of self control, and respect for rights of others and interest in enforcement of regulations all of which tend to form right ideals of life.

### 87.—THE ORGANIZATION OF THE SCHOOL.

1. Since the purpose of the school is to bring the teacher and pupil into touch in the teaching process most effectively and economically, organization must prepare the way for this exercise. That is the best organized school that offers best opportunity for this union of efforts of teacher and pupils. Every act of the teacher aside from the actual teaching and much of his effort then has to do with organization and its proper preservation. Organization seeks to harmonize the elements contributing to the school's creation and continued existence. Management seeks to preserve the organization and keep all parts working harmoniously. Discipline concerns itself with the restoration of the organization when one or more parts persistently get out of order and interfere with the proper working of the school. It may be an individual or it may be a class or several classes that require discipline. There is no intention to assert here that these operations have distinct fields that can be clearly bounded in all directions so that every act in connection with the school can be definitely classified as one of organization, management, or discipline purely. It is, however, true that there are these distinct phases in the work regardless of the fact that they shade into each other on their border lines. Every act of school government falls under one of two distinct heads—preservation of unity in the work or restoration of the harmony when the unity has been destroyed. 2. There are several characteristics that the good organizer must have. He must be able to see all the elements entering into the problem. Certain things

are legal while others are not required by law, and still others are not prohibited by law and may therefore be introduced into the organization if local public sentiment will sanction. Interests of the tax-payers are to be considered. No teacher can afford to make large demands for extras that will cost the district more than is sanctioned by the best judgment of sensibly conservative men. Parents are interested in the school and their interests should be recognized and protected. Schools exist for the children and not for teachers, and certainly the parents are truly interested in these children. The majority of parents are very willing to trust to the judgment of teachers, and this trust should be handled with the utmost care. The occasional unreasonable parent should not be allowed to set the standard for all parents. School officers have a right to consultation and their views should be respected even when the personal opinion of the teacher would seem to point in another direction. The wise teacher gets his plan into operation best by exercising wisdom in self-control and avoiding the appearance of too great desire to have the organization all in his own hands. On the other hand he must take hold manfully and not perplex others about simple little matters of detail that any one with reasonable judgment should settle at once. In connection with this it may be suggested that tact is a prime characteristic here as in all other places.

3. The organization of the school proper falls a little more within the individual powers of the teacher. A good organizer sees the end from the beginning. Much of the organization is made before the school opens. He knows the conditions of the school property, about how many pupils will attend, and something as to their proper classification before the first day. The appliances for work, such as, crayon, erasers, pointers, dictionary, charts and other apparatus that may belong to the school are prepared before hand. Paper, extra pencils, plat of seating of the room are at hand to make the starting propitious.

4. To organize well the teacher should understand as fully as possible about what work is suitable to the various ages and grades of children. Very good help can be found for this in the Manual or Hand Book for Iowa Schools, issued by the State Department of education at Des Moines within the past year. McMurry's

course of study for the eight grades is helpful also. The course in use in the best towns and cities of the state will be suggestive but all these will have to be adapted to the conditions and needs of the individual locality. It will not do to try to copy outright what one has seen done while a pupil himself or the work as laid out in some other place. On the other hand that teacher is not a good organizer who has no interest in the principles that are found to underlie all the matter that is found in these various sources. In addition to his recognition of the grade of work the pupil can do he should also have some idea of the results to be attained in mental development from the study of particular subjects. It is a rare teacher that can look upon all subjects impartially and give each the credit it deserves as an instrument in the child's education. Personal tastes and prejudices enter in to such an extent that even when there is an apparently rigid course of study there are varying degrees of emphasis put upon different subjects in turn by different teachers. In a measure this is an advantage, as it shows the individual teacher's strength and preserves her personality, but it also shows lack of balanced power of organization and little ability to adapt one's self readily to new conditions. To know the mental powers and see what subjects contribute most effectively to each will help very much in giving proper recognition to the different branches and their relations. Teachers have more power here than they realize and in their teaching they unconsciously enforce that power by the way they do their work rather than by public agitations. Any one interested can satisfy himself on this point by calling up in memory his own teachers and recognizing the things for which each stands to him. 5. There are evidences of proper organization that are readily recognized. When the organization is good the classification will be such as to insure balanced work. It is not necessary to have all pupils reciting in all the subjects they study in the same class in order to give evidence of good organizing power. It is necessary, however, to have the work in each particular class in any subject so well balanced that no pupil stands far ahead of the average, and that no other may lag behind this same average. Balancing the work by breaking over from class to class for a time is evidence of a good degree of organizing abil-

ity, but the effort should be made for the pupil's proper development to have him push ahead where he is backward and eventually have his powers balanced so as to make him as effective as possible along all lines of his undertakings. A well organized school with study and recitation program in plain view will be a good studying school. It is the salvation of the youth of our land to have a daily routine of definite duties to engage their attention with regularly recurring periods of vigorous effort and sensible relaxation. When more manual exercises are a part of the course of study this condition of good organization may more easily be met. What an unfortunate being is that person who has never attended school long enough to get into the way of useful occupation to such a degree as to form the habit of punctuality, regularity, and systematic effort. Not the greatest evil to come to the pupil that leaves school early is the loss of the facts never learned, but rather it consists in the absence of habits that the routine of daily school life would have formed in him. The organization of the school has an educational value far beyond what is ordinarily supposed by the average person. An aimless manhood is the product of an aimless youth and the school should cultivate aim and supply regular occupation. A well organized school makes use of the influences of systematic movements of classes and dismissals. The freer from formalism and red tape these can be made and the more completely the pupils enter into them from their own wills, the greater their educational value. 6. Out of the organism itself the laws determining what shall be the attitude of individuals toward the body of which they are a part, must grow. The fundamentals of school government exist within the school itself, and are not the formulated rules of school boards and teachers. The teacher is a mere director, moving the various organs of the school, not for his own satisfaction or whim, but because of a higher power, the law written within the purpose of the school when its organization brought it into existence. It is a mistake for the teacher to take the attitude of one dictating a law and enforcing it as one outside of its jurisdiction. He is himself subject to that law and merely explains and enforces its provisions upon all alike, himself included. This leads to the practical application that if it is

necessary that pupils should be quiet and not talk or run in halls or on stairways, then teachers should not do so. If pupils should not whisper with each other and their visitors during working time ,then teachers should not do so when visitors come into the room. If for the interests of the school the pupils should be polite and respectful to teachers, then teachers should be equally polite and thoughtful for the interests and feelings of pupils. Pupils should get their lessons, so should teachers. These are enough illustrations to point out the fact that the preservation of the organization of the school so that it may perform the part for which it came into existence is the great aim after the organization has once been made. This leads to the next chapter—management.

## II.

### **Management.**

#### 88.—WHERE MANAGEMENT BEGINS.

In the full sense this operation of the school begins where the organization leaves off. It is not possible, however, to organize a school completely and successfully without exercising qualities of good management. Likewise it is not within the province of management to get along entirely without the frequent re-adjustment of the organization to adapt it to new conditions that arise from time to time. Starting with good organization perfect management would make the teacher and pupil one in the attainment of the purposes of the school. But, even in such union of effort and aim, the thought, life and character of the teacher must ever be in advance of his pupil. The Great Teacher said, "I am the way, the truth, and the life." Reverently the human teacher should seek to become the way, the truth that shall lead the pupil out into the life to which he should aspire. The pupil thinks the thing or operation, the teacher thinks the same thing or operation also, but it is as an experience of the past and he adds to this, above the thinking of the pupil, the way the pupil thinks and the effects this effort must have upon the pupil himself. The way must lie open before the youthful learner. Truth must have embodiment in something that appeals to his intuitions and undeveloped mind. Life must man-

ifest itself to him in a manner that reaches his personal experiences. There must be a power that will bring these qualities of the teacher into vital touch with the pupil. That one essential element is expressed by the common but powerful word—confidence.

### 89.—THE TEACHER'S STARTING POINT.

1. The questions of management are present in every school exercise, but are most effective when modestly unobtrusive in their operations. They form probably the most serious problems of the teacher. Unless one proposes manfully to grasp the proposition set before him in this phase of school work he should not enter the teacher's realm. A failure here means more than the teacher's misfortune. There are the lives of all the pupils more or less blighted by the evils resulting from mismanagement, and when the total is calculated the outcome is quite appalling. In relation to what the teacher has as a starting point in winning and holding confidence it is probably not too strong to say that ninety per cent. or more of the children of the ordinary school come prepared, so far as intentions go, to co-operate with the teacher and the other pupils, the school authorities and the community in making a truly successful school. The burden of retaining this co-operation and bringing the refractory faction into harmony with the law of the school falls almost entirely upon the teacher. He must hold what he has and make friends and willing helpers of the hesitating and the occasional openly vicious. He is not a martyr to be sacrificed, but an artizan or possibly an artist feeling within himself the power to shape and be shaped by the movement to and fro as the school machinery ever seeks to adjust itself to the varying needs and requirements placed upon it by the growing child. Mind shapes mind, character inspires its like. Sunshine brings flowers and ripens fruit. Health suggests health and thus removes aches. Smiles awaken smiles. Order annihilates chaos. Dawn dispels darkness. So does the teacher stand in relation to the school. Unity from diversity is the demand of the school.

2. The question that confronts the teacher, then, is how to merit, win, and hold his pupil's confidence. There is but one word in the answer—masterfulness. He must be the reality as-

sumed and have power to *do* earnestly and enthusiastically what he attempts to do. There are various ways in which this power to win confidence may be attained.

### 90.—HOW CONFIDENCE IS WON AND RETAINED.

1. Scholarship is a fundamental element in the winning and holding of confidence of pupils, parents and school officers. (1). Its first effect is to inspire confidence through absence of mistakes and fullness of knowledge of subject matter. Pupils believe in the teacher who knows his subject. Uncertainty as to what is right, constant reference to the book and other aids in recitation time are sure ways to forfeit the confidence of any class of pupils. Mistakes in spelling, poor board work and similar evidences of weakness seriously impair the teacher's hold upon his classes. Other things may be so strongly in his favor that he may succeed in spite of these and similar defects, but the burdens thus placed upon these other qualities are likely to be more than they can sustain. The study of spelling books and dictionaries and the practicing of drawing and penmanship may not seem to be in the direct line of school management, but there are individuals who would find the reasonable mastery of such things the most effective lessons on management that they could take. Everybody believes in the person who *knows* and doesn't just "think" it is thus and so. (2). The teacher stands before the pupil as the representation to that pupil of what the effort to master his studies should lead him to become. Good scholarship on the part of the teacher impresses him with a sense of the sacrifice and effort that teacher has made to reach such attainments. This pupil, just as the remainder of us, has confidence in any one who has had the hardihood to toil and suffer if need be for the higher good. The boy or girl admires such qualities and is thus more ready to follow the leading of the person having them. (3). In the attainment of good academic qualifications the teacher should have acquired such a taste for study that fresh daily preparation will be a pleasure rather than a task. This freshness of knowledge adds to the power in management because it proves to the school that they have a growing teacher, and the child very much appreciates vigor and life. He believes

in the growing teacher. (4). Teachers with broad and accurate scholarship assign lessons better than those who see nothing but the horizon that bounds the pupil's view. The pupil may see to the mountain top, but he has faith in the teacher who can suggest to him some of the beauties in the valley beyond. (5). One of the most common criticisms pupils mentally make of their teachers is that they can not teach effectively. Good scholarship may reasonably overcome this criticism by giving the teacher broad powers of illustration. To illustrate well requires a wealth of material at command and the power to recognize when it may be used to advantage. Along with this power comes the courage to attempt to illustrate, and classes always vote the teacher who makes things live and glow with interest a successful leader. (6). The teachers whose scholarship is broadest are always the most persistent investigators and students. One of the best effects to come from these studious habits is the bearing they have upon pupils through their unconscious imitative inclinations. The thoughtfully studious teacher who utilizes spare moments in the presence of the school, creates an atmosphere for work that bears forcibly upon the question of securing a working school. A working school is a well managed one. (7). The community employs the teacher first and above all for the purpose of having a successful school. This they can not have without a growing teacher. By study and a modest manifestation of his scholarship his influence reaches beyond the school room, and he receives the co-operation of parents through his earnest devotion to the interests for which he is employed. He should not become a musty book-worm, but he can not, on the other hand, be a society leader or a manipulator of political machines and do his work properly. Parents believe in the teacher who has most thorough scholarship if with that he has the good sound sense that should accompany such scholarship. (8). With good intellectual attainments there comes, or should come, a breadth of view that enables one to take a broad and generous outlook on all questions relating to school policies. Narrow views never result in management that has educational value in it. A spirit of respect for the opinions and desires of others, and at the same time a manner born of conviction of the correctness of one's own

course is a result of proper scholarship, and this spirit never fails to command the respect of others and to secure a fair measure, at least, of their co-operation.

2. Sensible class tactics and superior teaching ability and devices win confidence. (1). There is no set of signals that is appropriate to all grades and all arrangements of furniture alike. The teacher must adopt, adapt, and use such as reach the desired end with least interference with the other operations of the school. Moving classes to the board, to recitation seats, and back to places gives opportunity for the teacher to show skill in management. Signals should be few, clearly given, and followed in concert by all concerned. The teacher's voice is the best instrument for this, but even that need not always be used, for at times the eyes of all should be on the teacher, then a motion of the hand will do. Precision is valuable when used as a means in making these movements, but it should be a means only and not carried over into useless drills for the sake of the show it will make. Pupils should remain seated until the teacher has decided exactly how the movements are to be made and given the proper directions. This makes all movements orderly and impresses the class that the teacher understands what she is attempting. (2). In recitation the class should be seated so that work can be directed quietly and effectively. This requires compact arrangement with no vacant seats to destroy the unity. The thinking of all is to be directed to one point. This is best secured when all are close together so that the teacher may pass the directions and questions quickly from one to the other. A compact arrangement affords easy view for teacher to see signs of wandering attention and disorder and broken unity may thus be restored at once. United work and thinking right here help very much to secure orderly work at other times. If united attention can be secured in no other way a little extra written work may be given when signs of inattention begin to appear. (3). The mariner who allows his vessel to drift at will is no more worthy of condemnation than the teacher who sees no definite point to be reached in the recitation hour. At such times the class, sometimes consciously and sometimes unconsciously, takes charge of the recitation and disorder rules, or it is prevented by external

means, such as threats and punishments. Pupils will have no confidence in a teacher who does not impress them that he knows the end to be reached. (4). Essential points must be given due prominence. Wasting time on non-essentials or the less essential things destroys unity. Pupils do not learn to look for fundamentals, and thus think very carelessly while studying. Careless thinking means divided attention and this brings bountiful opportunities for disorder at all times. (5). Making too little use of former knowledge and experience in comparison in fixing new ideas gives a disorderly arrangement of facts in the pupil's mind. His mind being in a chaotic condition in this respect fits him for disorderly conduct in other particulars. Clear, clean-cut comparisons, drills and applications give evidence of power on the part of the teacher that will insure confidence and command respectful attention and the united effort of the class. (6). The teacher who can devise, make, and use simple illustrative matter has another powerful means of winning control of the school. All the world believes in the person who does something, although it is not always as careful as it should be in selecting the things done, upon which it bestows its admiration. The time spent out of school in devising and making apparatus repays many times more than most teachers suspect in dividends of power to hold and manage a troublesome pupil or class. (7). Telling the pupil that the recitation has resulted in some good to him will not be likely to reach him in a way that will inspire renewed effort when he returns to his seat to study. Having the class collect carefully the points made insures a respect for the work and a confidence in the teaching that make the pupil follow the guidance of the teacher unhesitatingly in school duties where he cannot see results so clearly.

3. Confidence is secured and held by means of cultivated and accurate senses. (1). The eye should see not only quickly but accurately. There must be a mind back of it that measures exactly the meaning of what is seen and be able to determine a line of operation to meet the conditions suggested. The eye must be trained to see all pupils in the ordinary school room at a single glance. Not as the police officer necessarily sees, but to prevent, warn, and guide and finally detect. Also the eye of the

teacher should be able to measure more accurately, and discriminate more closely than that of any pupil. It should show its cultivation in what it says so that pupils may read the power back of it. (2). An ear free from all defects is also a primary essential in good government. It must not only hear accurately but must also interpret correctly. Innocent noise incident to work has a hum that is different in its character from that of the things that tell of mischief afoot. The tone of voice in which a pupil answers often furnishes the wide awake teacher with the clue by which he may be successfully reached. Sounds and signs require sensible interpretation at the hands of the teacher.

4. Reasonable determination and a well balanced judgment secure confidence. Vacillation is the ruin of all government. Stubbornness is equally as bad. The golden mean is what the teacher must find if he would succeed. Firm, even, balanced control, day in and day out, is another very important element in good government. A calm, well poised discrimination that sees all sides of a question with reasonable alacrity, and is then able to determine a line of action that any thinking person would say was just and right, is a quality beyond estimation in value for the teacher who would manage well. A well balanced power of judgment implies the ability to see acts and motives in proper perspective. It tells what is innocent and what is criminal, what must be looked after at once and what may be well ignored. It suggests severity here and a mere word of caution there. It adjusts means exactly to the end to be reached.

5. Force of character and large heart power always win confidence. (1). Character is the resultant of all past life plus the motives of the present day and moment. The teacher who is uncertain on moral questions as viewed by society in general is sure to be of little service to her pupils as a lasting force in leading them to overcome their weaknesses. A character protected and shielded from the pollution of the petty meannesses of life by its own inherent power, so that it dispels the poisons bred of low ideals as the sun drives away the miasma of the marsh and puts there instead flowers and golden grain, is beyond calculation in value as a power in proper control. (2). Likewise to feel that a great kind heart is beating in sympathy with his noble

impulses, while a keen judgment and a firm hand are detecting and dealing with his wrong doing and duplicity, lifts the ordinary pupil to a higher plane of living than he has been accustomed to occupy. Respecting the person and rights of the most unattractive pupil is not born of sentimentalism. Love and justice are not incompatible; but hate and justice are. The criminal may deserve all the punishment he gets, but the undeveloped child does not get all the sympathy he deserves. Heart power that enables its possessor to bury himself in devotion to an unpromising pupil will reap a hundred-fold harvest in the lives of the promising ones while doing something for those of less promise. "Faith, Hope, Charity, these three; but the greatest of these is Charity."

### III.

## Discipline.

### 91.—ITS RELATION TO MANAGEMENT.

Careful organization and wise and considerate management reduce the cases of actual need of discipline to the very lowest terms. But even with these well in hand there will be cases demanding special treatment because of the injury to the school and because the individual does not respond to the effects of ordinary good management. There are always a few in the school, as in the larger community outside, who must have the "law as their schoolmaster." Organization and management require that there shall be some regulation, and discipline steps in to help enforce those regulations when infractions occur. These rules should not be of the nature of "do not" so much as guides as to what is the right thing to do. They have more of the nature of explanations of the self-imposed law of the school through its own organization than that of prohibitions with stated fixed penalties for all offences. The good disciplinarian avoids the commanding position of having one definite and fixed punishment for all offenders. The same wrong act may be committed by several different pupils and each case reached most effectively and justly by widely separated means of restraint or punishment. In fact one may merit no punishment at all when another might deserve the infliction of positive pain of some nature.

## 92.—WHY PUPILS INJURE THE SCHOOL.

1. It is reasonable to say that the majority of disturbances that interfere with the good work of the school are due to childish thoughtlessness and lack of training and developed judgment. Since this is true the means used to bring about right conditions should be of the nature of management rather than that of discipline. Noisy walking in halls, noise in moving in the room, in handling books, forgetting to sharpen pencils at the proper time and various things of this kind are more evidence of thoughtlessness with sometimes a mixture of carelessness. The teacher should always be charitable here, remembering his own short comings due to the same causes, but he must manage to reduce the thoughtlessness and when carelessness verges on the criminal kind it must be met with suggestive disciplinary measures. To detect what is due to the unthinking acts of childhood and youth and deal accordingly is by no means a small problem. It takes time to form habits, and too severe measures here will defeat their supposed purpose. 2. The disposition to try the teacher is another common source of misbehavior on the part of pupils. This may be a good natured sort of test and one that is ready at once to yield to the powers and qualities of the teacher mentioned under the discussion of management. If this be true the wise teacher removes it without any apparent notice. A second phase of the question, however, is the persistent determination to annoy and disturb for the sake of personal gratification or feelings of lawlessness, or to see how much the teacher will wince under the treatment. The causes for this may be entirely outside the school. The beginnings of such behavior are usually from outside in the sense that they may come with the pupil from home surroundings, the influence of the street or from prejudices and evil feeling from past terms of school. If such should be the case wise management will succeed within a few weeks in breaking down the pupil's disposition to misbehavior unless his is a case of confirmed evil doing from habit and lack of ideals. In such circumstances a firm and positive stand in the way of disciplinary matters is necessary on the part of the teacher. A hint is given here that in dealing with experiences of this kind the teacher should look to his own

acts, characteristics and management very carefully to see if it may not be possible that some, at least, of the trouble may be due to his personality and way of doing things. At the last, it must be met, and after the teacher has determined calmly that the causes are not to be found in himself it is his duty to set about quietly but firmly and with all determination of success to bring the pupil over to the side of the law-abiding members of the school. If management pure and simple can not reach the difficulty, then measures of discipline must be the resort. One caution is necessary here, and that is, that the pupil's offense should not be put in the light of a personal one against the teacher. The teacher is a member of the school, and as such he is injured with the other individuals of the school, but it is a mistake to make the crime to be one of personal injury to the teacher. All misdemeanors regardless of the person at whom they may be aimed, result eventually in injury of the school and should be treated accordingly in correction. All teachers by thinking carefully what the purpose of the school is, and what conditions will bring about most effectively the realization of that purpose, can determine what should not and what should be done in school. After recognizing these detrimental occurrences the serious problem is to see which can be reached by tact and management and which must have disciplinary treatment. *It is a safe rule to give, however, that an ounce of management is worth a pound of discipline.*

### 93.—QUALITIES AND PERSONAL CHARACTERISTICS OF THE GOOD DISCIPLINARIAN.

1. Self control is a quality that stands in the very front rank as a characteristic of a good disciplinarian. It shows itself in bearing in general, and the calmness and perfect poise maintained when the most trying things happen. That teacher is very fortunate who can preserve a perfectly calm manner at all times. Next to him is the one who can keep a calm exterior even though deeply disturbed within.
2. Sympathy with childhood is essential for one who would have strong control. Entering heartily into the motives and sentiments of children is essential to him who would give his discipline educational value. Imaginative power of

the "put-yourself-in-my-place" quality is worthy of constant cultivation. 3. Self-sacrifice as a principle in the life of the teacher always wins the respect and confidence of pupils. It is not necessary to over work one's self and break his health to show self sacrifice. It is not so much in the amount of extra trouble one assumes for the sake of others as it is in the manner with which all duties are performed, that this quality shows itself. It is devotion to duty without anxiety as to the personal advantage that may come from the course of action. 4. "Cowards die many times before their deaths." This is true of the teacher who is afraid to approach manfully the questions of school discipline. Some pupils may be offended, but it is better to be the cause of offence to some people when one's cause is right, than to be a coward and lose his self respect. It is not meant that in order to give evidence of courage one must loudly and ostentatiously attack every evil he can find, but it does mean that when an evil is preying upon the best interests of the school the teacher with all tact and good judgment at command should grapple with it, firmly believing that his side will win in the end. There are two forms of cowardice neither of which is becoming to a teacher. The one quietly submits and allows things improper to proceed unmolested. The other whistles and shouts as a boy trying to keep up his courage in the dark, and like the boy runs away at the first suggestion of danger. Real courage acts quietly but it resolutely faces the "lion in the way" which may make some show of resistance but in the end he slinks away and is seen no more. 5. Closely allied to the proper degree of courage is a keen sense of justice. Pupils readily acquiesce in events when a fellow pupil has met punishment that they feel is just. Generally in the school of reasonably proper spirit there is a fair ideal of justice toward which all look. The teacher who seems ever to hold this ideal above personal satisfaction has the support of the majority of the pupils at all times. 6. Sensible and sympathetic regard for the rights and feelings of others is an essential in good discipline. Nothing appeals more strongly to the boy or girl than the feeling that the teacher's justice is tempered with mercy. The weight of punishment is removed early enough to prove conclusively to the pupil that it was for his good and that

of the school that it was inflicted instead of its being done to satisfy a personal evil feeling of the teacher. 7. The ability to appreciate the humorous side of really amusing things and the dignity that permits the teacher to join with propriety in the resulting laughter is a matter worthy the cultivation of more teachers. Children are natural humorists and swing readily from smiles to tears, and the teacher who would discipline well must be quick to take advantage of these tendencies. 8. Appreciation of the efforts of pupils should find means of expression. Most people think they have done enough if they avoid saying unpleasant things to others. The teacher should watch for opportunity to commend wisely. Good pupils deserve more attention than they get. The wayward can be helped by honest commendation of the efforts they make even though they may not be so successful as the teacher may desire. This must all be done adroitly and with such sincerity that all appearance of flattery with a selfish motive may be avoided. 9. The power of a strong personality is very helpful in discipline, but with it there lies a danger that some such teachers fail to appreciate. This power is frequently used to secure right conduct as a favor to the teacher which is an incentive that will leave the pupil and school in bad condition when that teacher leaves. In fact it is in bad condition while he is with it for he is the one around whom right motives cluster instead of being established on the good of the school. In the end the discipline is not of proper kind because it is based on the personal popularity of the teacher rather than proper motives of self control. 10. A reputation for certainty of punishment rather than swiftness or severity is a prime characteristic. That the treatment his misdemeanor deserves is sure to be meted out to him is one of the best preventives that can come to the notice of any child. 11. A good disciplinarian is sensibly optimistic, for in that way he puts the best interpretation upon all acts of pupils and thus is more sure of dealing justly. He takes a large view and has large faith in the ultimate success of what is right. 12. Steadiness, firmness, vigilance, dignity, politeness, saying little and doing much are qualities that can be mentioned as important, but there is not space to enter into a discussion of them. These are not all, but they are suggestive of

things that the individual teacher may find it profitable to cultivate within himself.

#### 94.—EVIDENCES OF THE NEED OF DISCIPLINE.

1. General disorder is an evidence of poor discipline. This manifests itself on playground, in halls, through general manners of pupils and by attitudes assumed in studying and reciting.  
2. Poor lessons give evidence of too great laxity in discipline. Restraint of the chronic wrong doer is necessary or his ailment spreads so as to result in poor lessons in all the class. When poor lessons occur and the teacher has manifested the powers suggested in management then it must be that some pupil or pupils are working against the interests of the class, and when that is true discipline must take charge of them. 3. Disobedience is a very positive evidence of want of discipline. The teacher has no right to desire to be obeyed simply because he is in authority for the time. As the interpreter of the law of the school he must have obedience to that law. Too often obedience is expected and demanded because of the feeling of authority, power, rank, infallibility of judgment of the teacher. These are exterior influences and have little in them to arouse in pupils a desire to obey willingly. Willing obedience is the kind that should be secured, but if individuals persist in disobeying the reasonable requirements that the good of the school demand, then they *must* obey because of higher outside power. 4. Insolence is the final school sin since it is the exhibition of all loss of self respect and of interest in the good name and proper success of the school. It has the spirit and hopelessness of anarchy in it. It must be rooted out at once or its deadly poison will permeate the vital organs of the entire school.

#### 95.—MEANS AND METHODS OF DISCIPLINE.

The pupil should be led to see wherein his acts are detrimental to the best interests of the school. When he sees this and promises to reform he should be given another trial. Continued failure to improve, however, makes him a culprit before the law of the school. If he does not respond to warning to private reproof and admonition a more public notice must be given to his

acts. This must be managed so that the preponderence of public sentiment of the school will be on the side of the law and order. That makes it necessary for the teacher to manifest many of the qualities mentioned on a former page. One very fair and useful means for giving larger publicity to the pupil's agreements and promises of reforin when it becomes necessary is through a written paper of simple questions and answers which gradually lead to such admission of wrong doing as the pupil is willing to make and which also contains such pledge as he consents to make after he has thought it all out carefully. Let *him* work out these problems. If he makes promises and persistently violates them he should agree that his classmates may be apprised of what has been done for him and let them judge as to how well he has kept his side of the agreement. At first these consultations are not real punishments but eventually they may thus be made so, not to humiliate but to give the school opportunity to see that justice and other right principles of discipline have been observed and let proper censure thus fall upon him as a disloyal member of his school. Here comes the principle of all sending home for the day, suspension and final expulsion if that ever should become necessary. Expulsion is a last resort, however. Sensible corporal punishment should be used below the High School if there is any hope that it will reach the desired end before expulsion is put into effect. When privileges are abused deprivation for a time is the necessary course. This makes it admissible at times to detain the pupil and give him a recess by himself. He may remain for a time after school because of misbehavior when going home with others. He may remain to finish neglected work. It is not wise to keep after school and set tasks to be studied as punishments for misdemeanors of the schoolroom, such as whispering and so forth. He may be detained a short time for private consultation and reproof for such things. All punishments should grow as naturally as possible out of the nature of the offence and be justly proportional to the intention within the misdeed. Punishments that unduly humiliate or that endanger the body or health in any way should be avoided. Teachers should not be too anxious to see effects of weeping and

similar emotional manifestations, as determining to secure them may result in undue severity. Also it savors a little of the idea of punishment for the satisfaction of the teacher and not for the good of the school and pupil. So far as possible pupils should be led to see and admit the fairness of what is done. General suggestions of things to be avoided may be made effectively to whole school or classes if done in proper spirit, but consultation for correction of misdemeanors would better be with individuals rather than groups. So far as possible pupils should not be sent away angry. But if this can not be avoided let the teacher do his duty and wait for time to show the pupil the justice and necessity of the course his teacher took. No kinds of punishment should be used habitually. They should vary. Not the same for all pupils, not the same for all offences, not even the same for one particular pupil with the same or different misdemeanors should be the teacher's rule. A candidate for a teacher's certificate in an Iowa county in writing on a question in didactics recently said, "I have never taught, but this is the way I would see it as a pupil!" In determining means and severity of punishment many times the teacher should see it not from the teacher's standpoint but from that of the sensible and fairminded pupil and justice will be done. All misdemeanors are against the school, none should be interpreted as really against the teacher personally.

#### 96.—THE QUOTATION AS A FACTOR IN DISCIPLINE.

"A word fitly spoken is like apples of gold in pictures of silver." In accordance with this thought the quotation is very helpful in dealing with many cases in the course of a busy day in school. One of the first duties of the school is to impress the importance of a spirit of helpfulness. This is a part of management and discipline and cannot be reached without realization on the part of the pupil of the rights of others and his own duties in respect to those rights. He must be able to look upon his relations to others from the position of that other person. The quotations that apply most readily to this general view of his duties are the familiar words from the scripture: "Whatsoever ye would that men should do to you do ye even so to them." "Thou

shalt love thy neighbor as thyself." The thought expressed in these texts must get into the life of the pupil, not as sentiment, but as living principles, before he is in condition to do fully his part as an orderly member of the school. A little couplet that comes nearer the child's feelings with the same thought is, "Be kind in all you say and do, that others may be kind to you."

This may seem to get at the principle through inherent selfishness, but it is the concrete in morals that he must have, as he must have it in intellectual things, before he sees clearly what his own interests as well as those of others demand of him. When he arrives at an age that he may see that the injury of one in the school community, or in the larger unit of society in general, means the injury of all, he can more readily do his whole duty on such questions without the incentive of an immediate return to come to himself. When he is able to see that mobbing a criminal lowers the standard of civilization for every man of the time he will need no appeals to his immediate interests to lead him in the right way.

Aside from the general spirit of helpfulness that should be a fundamental in all efforts at government there are specific kinds of infractions of the unity of work that need attention and that may often be reached most effectively by means of a trite sentence that appeals to the better judgment of the pupil. Tardiness, idleness, thoughtlessness, impoliteness, low or imperfect ideals, bad habits, and kindred topics can be handled in a tactful way by this means with the very best of results in many cases. The besetting difficulties of certain individuals may be touched without offending, by class or teacher at the opportune time quoting a thought that is exactly suited to the difficulty at hand.

A few quotations are given as illustrations. Tardiness: "Method is the very hinge of business, and there is no method without punctuality."—Hannah Moore. "Lost time is never found again, and what we call time enough, always proves little enough."—Benj. Franklin. "Time loiters not."—Bailey. "Idleness: "Be ashamed to catch yourself idle."—Anon. "The dev'l goes for the busy but the idle meet him half way."—Spurgeon. "In idleness alone there is perpetual despair."—Carlisle. "Do not

undertake the dreadful drudgery of being an idler."—Victor Hugo.  
Politeness: "Politeness is to do and say the kindest things in the kindest way."—Anon. "True politeness is perfect ease and freedom. It simply consists in treating others as you love to be treated yourself."—Chesterfield. "You can always discover a true gentleman by his address."—James Ellis. "Never interrupt another when he is speaking."—Washington.

A miscellaneous list is given from which selections for various occasions or dispositions may be chosen.

For he who will always do his best,  
His best will always grow;  
But he who shirks or slights his task,  
He lets the better go.—Phoebe Carey.

"He overcomes a stout enemy that overcomes his own anger."—Chilo.

"Let's have heads that think and hearts that beat."—Surgeon.

"Whatever is worth doing at all is worth doing well."—Chesterfield.

"Kindness is the golden chain by which society is bound together."—Goethe.

"Dare to do right, dare to be true,  
The failings of others can never save you."—Wilson.  
"The fisher who draws in his net too soon;  
Won't have any fish to sell;  
The child who shuts up his book too soon,  
Won't learn any lesson well."—Swan.

"Grumblers never work, and workers never grumble."—Surgeon.

"They never taste who always drink;  
They always talk who never think."—Matthew Prior.  
Words are like leaves; and where they most abound,  
Much fruit of sense beneath is rarely found."—Pope.

"Tongues are like race horses, the lighter they are loaded  
the faster they run."—Bishop Butler.

"The empty cask makes more noise in rolling than a full one."

"Think for thyself, one good idea,  
But known to be thy own,  
Is better than a thousand gleaned  
From fields by others sown."—Wilson.  
"Waste not moments, no nor words,  
In telling what you could do  
Some other time; the present is  
For doing what you should do."—Phoebe Carey

"Silence is one great art of conversation."—Hazlitt.

"Laziness grows on people; it begins in cobwebs and ends in iron chains."—Sir Matthew Hale.

"Better than gold is a thinking mind."—Alex. Smart.

"It is not enough to have a sound mind; the principle thing is to make a good use of it."—Descartes.

"At every trifle scorn to take offence,  
That always shows great pride or little sense."—Pope.

"A man of evil intentions easily believeth the worst."—Anon.

"A man's success in life depends more upon his character than upon his talents or his genius."—Anon.

"The strength of a man's life is equal only to the strength of the weakest hour."—Rev. Thos. Dixon.

"Never accuse another to excuse yourself." "Politeness is the outward garment of good will." "Bad manners are a species of bad morals." "A person good at making excuses is seldom good at anything else." "A still tongue makes a wise head."

The thoughtful teacher will find opportunity to use such quotations and many others probably more applicable to her special school needs. They become concrete and full of meaning to the pupil when repeated just at the time they are most suitable. He then has the experience uppermost that is necessary for a full understanding of the sentiment. To illustrate: A boy given to asking for too much help can be reached by class quoting, "Think for thyself," etc., when he is making his request for help. A class

given to talking too much and on irrelevant points may have the Bishop Butler quotation, "Tongues are like race horses, the lighter they are loaded the faster they run." These should never be given in a tone of sarcasm.

One great advantage in their use is that it takes out nearly all the element of personal rebuke by the teacher when the class or teacher quote the words of another in the right tone. They should be committed by all and named or numbered so that it is easy to refer to them. The practice of committing and reciting in concert at opening exercises or odd moments is an excellent means of getting a body of helpful thoughts into the minds of the pupils. In private correction the teacher may use them effectively. Not everything committed should be intended for the purpose of discipline, but the sentiment should be good and should contribute indirectly to the good of the pupil and that of the school. A result in no way to be overlooked is the effect such a course has upon the teacher. To correct with good results by quoting a noble sentiment requires the teacher to embody that sentiment in her life. Measure your daily life by some of the good quotations you find and thus see if you dare use them.

#### 97.—DEMOCRATIC OR CO-OPERATIVE SCHOOL GOVERNMENT.

(A day in John Crerar school, (Chicago).

I. The Plan.—The progressive teachers of Iowa, as indeed are all teachers of that class, are interested in any movement that promises better men and women as a result of the education obtained in childhood in the public schools. With equal unanimity all agree that there are lessons to be learned that are not directly found in the subjects laid down in the course of study. In the organization and management of the school itself many of the most important lessons for the embryo citizen may be impressed. The John Crerar public school on the west side in Chicago is one of the places in which an intelligent attempt has been made for several years to enlist the interests and sympathies of the pupils from the primary through the grammar grades in

the good order, good name, and civic responsibilities that should naturally belong to the miniature democracy, or at least semi-democracy, that a public school should be. The devices used and the steps taken to put the plan in operation can not be explained here for want of space, but any one interested and not familiar with these features can get information as to where matter relating to them may be obtained by writing to Prin. John T. Ray, of the Crerar school. The purpose of this article is to report some observations and record a few impressions with a limited number of what seem reasonable conclusions from what the day's visit furnished.

2. Halls and Playrooms.—On alighting from the car within a block of the school building at a few minutes of nine one morning the writer had no adequate idea of what he should expect to see as he came nearer the school. There were pupils coming from various directions but all disappeared within the building through the several doors without appearance of teachers to form lines or to take charge in any visible manner. When fully inside a few pupils were seen going quietly to their rooms, but still there were no teachers to be seen in schoolroom doorways or the lower hall. The principal's office was found and a small boy present politely stated that Mr. Ray had not come yet, or at least he had not seen him. It seemed a little strange that a great school of seven hundred pupils of primary and grammar grades should be distributed in the room so quietly and without a principal in evidence any where. It may be told here, parenthetically, that the principal was away on business at the rooms of the school board in another part of the city, and that he did not return until well toward the close of the school day. While he is a very genial man and one that a visitor regrets not to find about the building, on this particular day the purpose was answered even better by his absence than his presence for the greater part of the time. With such an opportunity one could spend the time in the play rooms, about the halls, and in viewing the general workings of the system without any feeling that possibly the presence of the principal with him might explain in some degree the conditions that were seen.

In the playrooms of the boys at recess there was vigorous playing going on, but with the very best of spirit without a teacher in supervision. A visitor mingling among them was in no way made to feel uncomfortable, nor in fact did he seem to be noticed. When a boy was addressed by the visitor he responded respectfully and then a group would probably form to enter into conversation. All replies to questions were made in a manly and frank manner. A breaking up of the group by some leaving led to the remark that possibly we were detaining them and one replied that the tribune had said that it was time to go and all quietly took places in line on the stairway and returned in good order to their respective rooms. One boy said, "We are from the sixth grade, room three, won't you visit our room?" He had a manifest pride in his school and seemed to express in words what many others felt but did not reduce to formal utterance. The playroom order could not help impressing one. The spirit of friendliness and good will that was evident removed so thoroughly the thought of his being a stranger that one could feel his boyhood blood racing through his veins making him wish for the backward flight of time that he might be one of them again and have just one more romp with the boys. Good boyhood ideals seemed clearly discernable in the playrooms.

3. Teachers, halls, and schoolrooms.—The teachers, too, seemed to have a recess. A number gathered about a table in one of the wide halls and had opportunity for rest and a few minutes of relief from the active schoolroom duties. These teachers did not seem to be looking after the halls, and in fact there was evidence that the pupils did not rely on them for guidance as to their own acts. There seemed to be one teacher on duty, but rather as referee or an adviser that could readily be found should anything out of the ordinary happen, than acting in the capacity of an officer of the day looking after lines of marchers. In the ordinary occupations of the school, in most cases, there was such a spirit about the rooms that one could easily notice the absence of the nerve-straining high tension under which so many schools are conducted and on account of which strain so many teachers break down. The voices and manner of teach-

ers and pupils revealed a decidedly good feeling in general, especially when numbers and elements which must be present and might be troublesome are taken into consideration. One room visited gave a good opportunity to see what pupils would do in the absence of the teacher. The work in drawing had scarcely well started when the teacher was called from the room and detained ten, or possibly fifteen minutes, and in that time there was not a movement that would indicate anything that would not have been allowable in the presence of the teacher. There is no doubt that there are individual teachers working in other schools who have such influence over the school that a similar example of faithfulness would be manifested on such an occasion, but unmistakable evidences and a few words of testimony from the principal give assurance that this is not so rare a thing there as in most large schools.

4. Dismissals.—At the end of the sessions the hall manipulations were in the hands of pupils and the building was emptied in a very short time in an orderly manner. The lines may not have had the military precision or the measured tread so dear to the hearts of some authorities, but the children passed quietly and in good order, but with a childlike naturalness that was pleasant to see. The power animating and controlling these activities was so fully concealed and yet so actively at work that it was worth a great deal of effort to see this part of the school day alone. It was not the movement of dead machinery impelled from without but the activity of a living organism moving through the power of a right motive force within. It was not icy formalism but organized life. At the close of the day's session some of the pupils loitered about some fresh school work that had been posted on a bulletin screen standing in the hall for that purpose. They had such an "at-home-air" that it did one good to watch them and realize that there is a power of self control in the average child if he is touched along the right interests of his life. The behavior of the children towards strangers and those passing on the streets was another noticeable feature of the school. We were told that very little trouble of this kind occurs and that the teachers are always treated with kindness





GEORGE W. SATTERTHWAITE,  
Muscatine, Iowa.  
CLASS 1901.



EDWIN M. WILCOX,  
Montour, Iowa.  
CLASS 1901.



CARL D. BEHRENS,  
LeRoy, Minn.  
CLASS 1899.

*State Normal Graduates as Teachers in the Philippines.*

and consideration on the street by the pupils.. The atmosphere in and about the school was far more congenial and pleasant than it is found to be in many schools, possibly one should say in most schools.

5. Not "soft" government.—The use of the term "pupil government," in connection with these efforts has created a wrong impression in some localities. In fact, at present there seems to be an effort on the part of the advocates of the movement to remove the misunderstanding by use of the expressions, "democratic," or "co-operative," government. As one sees the workings of the system in this school he can plainly discern that it is not a government—or absence of government as would be the result—by throwing the entire control into the hands of undeveloped boys and girls through a system of elections, assemblies, courts and the like. Such a course would probably beget anarchy from which would result tyranny before order could be restored. The plan is rather the employment of organized motives and sentiments of the best disposed pupils in getting their hearty co-operation in the organization and management of the school. The pupils, teachers, and principal unite in a plan whereby those well disposed and willing to exercise proper self control may have special privileges for themselves, or more properly, may have freedom from restrictions imposed from the outside so long as they take themselves in hand properly and take no advantage or abuse no privileges that will injure the school, including children, teachers and patrons. Ordinarily the pupil feels that so long as the teacher does not tell him he must not do a thing no matter what his own judgment would suggest to him to be the right thing to do, he is perfectly free to persevere in the wrong course. He gives his judgment and conscience over into the keeping of another and he takes no responsibility upon himself for his acts, but expects the teacher to catch him and then to tell him what he must do. In a decided degree the Crear school seems to break down the idea that the pupil should take no responsibility for himself and his companions as to the conduct in and about the school. There is a healthy sentiment against law breaking and law breakers and a disposition to see

that wrong is made right and that the wrong doer is warned and brought to justice.

In order to illustrate that the difficulties are not all removed by this plan (as no one acquainted with its workings claims is true) and that the man at the head stands for something positive and is exerting his influence to bring right results, two incidents that occurred at the close of the day in the principal's office are related. A father came in to see about some difficulty that the school and he were trying to work out with respect to his boy. The statement was kindly but frankly made to him that his boy was troublesome and that he could not be allowed to go on in the course he was taking. It was agreed that the boy *must* behave and that school and parent would unite to enforce the decree. There was a positiveness about the proceedings that assured one that the evil doer was not given his way simply because he chose to go that way, but that he was to be made to realize that he must conform to requirements of the community life in which he found his life cast. Another thing that showed both the spirit of the school and the method of looking carefully into matters to warn, encourage, and lead into right habits of control of self, was a little conversation that we heard between the principal and an eighth grade pupil. The pupil brought to the office ten cents to pay for a window pane which he had broken with a ball. He had come promptly and confessed that he had broken the window without having to be hunted down. He also stated frankly, when asked, what other boys were present, but added, "I broke the glass though." The reply to his statement was, "That is true, but I must see the other boys for they were not exercising proper control over themselves or they would not have been playing with you at a time that would be out of order and endanger property." There was a spirit and a frankness about these incidents that showed a disposition to right doing and at the same time a revelation that attention is given where help is needed. It seems perfectly safe to say, however, that the greater part of the trials of hall order, management of playroom, spirit in the class room, and right sentiments toward the school and one's civic duties are assumed and worked out by

the pupils greatly to their own advantage and training, and in such a manner as to relieve the teachers from strain and make the work more effective.

Some conclusions.—A few statements are given in conclusion as the results of the impressions received from the day's visit. There is something in the system worthy of the study and attempted application by teachers. However, if one is not honest, earnest, persevering, large hearted, sympathetic, hopeful, and positive he must expect results according to his weaknesses as in any other occupation or course that he may undertake. The training in assuming control of self, taking proper attitude toward wrong, wrong doing, and the wrong doer in the community and seeing that the offender reforms or is properly reported to higher authority, is of the greatest value. Natural motives of desire to be trusted, to undertake reasonable difficulties on one's own responsibilities, to see justice and right prevail, are thus utilized and consequently developed and trained. A concrete training in proper spirit of reverence of our home, our school, community, city, state, and nation, is thus given the child early in his life.

The naturalness of the pupil under such treatment shows that it is nearer the conditions that prevail in the majority of homes where children are led by impressing of right ideals rather than always being made the automatons to move only at the will of another. Children should obey the self imposed law of the school as found in the necessary life of the school itself, but the most effective obedience is that which comes from the desire of the pupil to obey because his will is in accord with the community's sentiment of right and wrong.

Finally, a word of caution is offered to those disposed to view everything out of the ordinary as fanciful, or to refuse it any credit unless it can be shown to reach all evils imposed upon the school by the wayward, or who say the same thing can be found in use in past times, or who insist that it is easier to make pupils do what they should in school than it is to lead them to do right through their own motives. Granted, that there is some

truth in all these statements should you still deny the children the right to that training that promises better men and women in the homes and better citizens in the state? There is much that is worthy in the idea of democratic school government and a study of the fundamental principles on which the ideal system may be founded, eventually, is vastly more useful than to see nothing but the weaknesses. Pupils should obey, not their teachers only, but the higher law of proper self control for the good of others and themselves through exercise of their own will power to understand the right thing.

## SPIRIT, OBSERVATION, REVIEWS.

### I.

#### The Teacher's Spirit.

##### 98.—RIGHT SPIRIT IN GENERAL.

It is the spirit manifested toward his work that makes any person attain his highest value to his employer and to society. There is, perhaps no other occupation in which the spirit put into the day's duties is of more consequence than that of the teacher. It is only the full hearted teacher that can give expression to motives and sentiments that are the real educational influences. There are few people who can so thoroughly rise above the disposition to put desire before duty that there are no elements of drudgery in their daily tasks. The spirit put into the work may lighten these, however, and what is drudgery to the many may to some become not pleasurable but useful in the power developed by difficulties overcome. Few teachers would agree when trying to make a list of the things that should be named the drudgery of school day. In the next topic are a few things that try many teachers and the ability to meet them calmly, without a word of evidence of a disturbed interior, bespeaks a person of great self control and earnest devotion to the interests of her school.

##### 99.—TOWARD THE DAILY, WEEKLY AND MONTHLY ROUTINE.

The spirit put into the task of preparation for the work of the coming day has much to do with the success of that day. Those people are most fortunate and happiest who have little drudgery and few worries. Not that they have fewer responsibilities and duties than others, but because of the spirit put into the work the nature of the duties themselves seem changed. Such persons have few troubles. What others call troubles they regard as incidents of their occupation and of daily life in general. 1. Planning lessons and work for the day can not be escaped if one desires power and success. New days bring new responsibilities. 2. Looking over written work, especially when

the writing is poor, and worst of all when so many mistakes are found which pupils have been told so often to avoid and shown how to do it. It takes a brave heart and large faith here. 3. Selecting matter for opening exercises and making the exercises of practical value and interesting. This topic is discussed briefly on other pages. 4. Keeping room, desks, boards, and pupils in order. Especially in this last point does the weary teacher many times find her spirits all exhausted when the hour for closing arrives. Such times as this are the places to stop and "count your blessings." 5. Keeping records and making reports is another trying occupation. Under some superintendents this becomes a "weariness to the flesh" that may make it almost pardonable for the worn teacher to think some uncomplimentary things about the inventor of red tape, especially the school variety of red tape. However the distasteful has its place and may be so put under the feet of the laborer as to lift *him* instead of bending his shoulders with a load of over heavy burdens. This is another place to count blessings. 6. So much has been said on other pages about the work of the recitation period that it will simply be mentioned here. Earnestness, enthusiasm, accuracy, clear grasp of work to be done and firm but good natured determination that definite work must be done by pupils are all essentials in this period to show right spirit.

#### 100.—IN RELATION TO PROFESSIONAL IMPROVEMENT.

1. Every teacher should have some means of knowing personally of the educational discussions and movements of the day. Attendance at local teachers' meetings in graded schools and in township or other local units under the county superintendent should be regarded as an opportunity rather than a requirement. No meeting can fail to be of benefit if all, or the majority of the teachers, go there with profitable questions that they desire discussed and with a disposition to say something as opportunity may offer. It shows a lack of proper spirit for the teacher to complain of such meetings that they are not profitable and try to throw all responsibility on the presiding officer and executive committee. Be fair and say to your "professional self," "What have you done, sir, to make these meetings successful?" The

good seats in the lecture hall are demanding too much from the platform; the pew requires, too often, that the pulpit must furnish all the enthusiasm in the preaching and other church work. Dead embers are plentiful; real, live coals are in demand in the teachers' meetings and elsewhere. Aside from the local meetings come the county gatherings occasionally, the sectional meetings of the various sections of the state, and the State Association meetings. The progressive teacher attends and is personally interested in as many of these as possible. 2. The great educational effort for the ordinary teacher each year, of course, is the county institute. If this is what the county superintendents labor hard to have it be, it should be of value to nearly all teachers of the county. There are some who may be graduates of higher institutions or because of superior professional attainments may not find the institute valuable, and to those the sensible superintendent shows such favors as his oath of office will allow. However, there are some claiming such recognition on slender arguments. Others can be found who have the diploma mentioned but who sit quietly down and never help the institute or other educational gatherings of the county in any way and still desire recognition as candidates for good positions or even for the superintendency of the county. Such people are unprofessional in spirit to say the least. The teacher who attends a good summer school is sometimes excused from institute attendance. This would seem but fair and yet there are questions entering into it that none but the superintendent on the ground can actually decide. To the teacher who attends the institute it may be said that one secures benefits in accordance with the previous preparation and the spirit of work and earnestness shown during the session. The teachers of a county have a considerable part in making the institute what it should be. 3. The professional reading of teachers is a question of large importance. As to the kind of educational papers one should read each teacher must, in great measure, be "a law unto himself." There are papers suitable to teachers of all degrees of development. As the teacher grows in skill and power she should outgrow some educational journals, but she should thereby grow into others. Attorneys, physicians, ministers, business men in general, and farmers who are progressive read the journals devoted especially

to their work. Why should the teacher, the leader of the educational work of the community, be without a regular journal? Aside from the journals the progressive teacher reads some professional books. It is not the best policy to rely on borrowed books entirely for this reading. He should purchase and read, mark, re-read, and mark again some of the standard professional works each year. No book gives its best results by one reading. In connection with the specifically professional reading every teacher should do some general reading of papers, and magazines that will keep him posted on the movements of the thought of the day. Some good books should also be read, but by no means should the busy teacher feel that he must keep up with all or even most of the late popular books. Most of the popular books one can afford to wait a year before reading and then it may be that he will find that there is something more profitable he can do than to read certain books at all. If he decides otherwise then he has a very good reason for reading them and the time will be profitably spent. The following suggestion may savor a little of "shop"—a thing about which some people seem peculiarly sensitive—but it is well for the teacher to try to find help for his particular work in all the reading he does. Reading should make one a better workman in his own line regardless of the fact of its not being specifically professional and in no other calling is general information more in demand than in that of the teacher.

#### 101.—REGARD FOR COMPENSATION.

1. In selecting a life work the question of compensation is one of primary consideration. Every teacher should regard the question of salary as one of importance. The salary should stand as nearly as possible up to a just recognition of value of service. It should not be a measure of effort, however. The true spirit of service assumes that in taking a position one agrees to give his best effort and his time to the work he has accepted. Promotion comes through earning more than the salary received.
2. It is a proper motive to desire to merit and win the approval of the general public. This is all right when the attempt to reach the end is made through superior work and attainments and not through subterfuges. Also the approval of the children should be desired, but especially should it be that

which they can justly give when they are men and women and the judgment is well developed. Sometimes the immediate judgment of the child will be reversed in after life, which shows that the teacher failed in a measure to get the approval through right motives of the child. 3. Every good teacher has some pride in his "profession" and desires that his standing as a teacher may be such as to give credit to all others of his class. Or at least he should feel that the name "teacher" should not be lowered because he is one. 4. Great good can come to the teacher from the opportunities for personal growth and development if the spirit is kept right. Little can be expected of that person who has no desire to become a master in his trade. To have no ambition or longing to be a superior workman is the curse of far too many lives. The true spirit inspires to better things. The school room furnishes the grandest opportunity for the development of true manhood and womanhood in the teacher that can be found anywhere. There is every reason for the one who daily stands before children to have the highest of ideals and to strive constantly to live up to those ideals. This is a part of the compensation in teaching that should be secured by every teacher and should in no wise be neglected in counting the rewards of the teacher's life. 5. Another motive that actuates the earnest spirited teacher is the desire to save pupils. "Education should counteract sin by making the race stronger."—Hughes. There are dangers against which every pupil must struggle. He needs the inspiring help of a true teacher all along the way. Go out for the wounded. What are the names that will fill the blank prison records now waiting? The places left vacant and the names written there with a little less crimson because of the efforts of devoted teachers none but the Infinite can ever know.

#### 102.—SPIRIT TOWARDS PARENTS AND OTHERS.

1. The feeling toward parents should be of a nature to encourage their co-operation. They are willing to accord the teacher all the power necessary and not interfere with his prerogatives if he will make himself so approachable that the parent can feel in him a friend instead of a self centered monarch not to be approached by any excepting those to whom he may stretch forth his sceptre. Parents have interests and burdens

that should appeal to the teacher as sensible and worthy of his recognition. 2. A dictatorial manner toward the janitor of the building is a mistake. Win and unite for the good of the school every person who in any way touches it. Make an effort to manage so as to reduce the work of the janitor rather than increase it. Be willing to give him all the credit possible for helpfulness. 3. There is many a noble, self-sacrificing man on the school boards of our state whose efforts are worthy of the most thorough commendation by teachers. He serves without pay and stands frequently between the schools and the scheming of those who would sell them for a mess of pottage. He is the teacher's best friend and should occasionally know that his efforts are appreciated. Of course proper regard for the position and work of principal or superintendent as a school official is essential in proper spirit. 4. Time is precious, but the teacher who makes every one who has a little business with him feel that he can not be bothered out of school hours, is missing one of the greatest of opportunities to learn and to win the help of others. Agents of various sorts may take some time but they will be glad to accommodate their calls to the teacher's convenience usually. The representatives of book firms are entitled to respectful hearing and they can give items of general information about books that any teacher may use to advantage. Get more, even from your interrogator, than he gets from you. On the other hand, the stranger expects you to stand reasonably in the background until there is reason for a show of interest. Therefore, do not try to force processes by excessive affability. 5. Patience in answering provoking missives; charity when there is an opportunity for complaining of remissness; kindly remembrance of personal circumstances, inquiry after sick ones, congratulations on success, cordial wishes for the future are suggestions given as an opportunity for the application of practical religion in business. There is a wealth of suggestion for the teacher here also. More interest in others will remove many of the teacher's ills. 6. A good time socially is not to be denied the teacher occasionally, but when that seems to be the end for which the teacher lives her life as a teacher is liable to be brief. Teaching is the first business of the teacher, and these other matters while proper enough should be made secondary. Behavior

on the streets and in other public places shows the true dignity or lack of it in the teacher. In some senses the teacher must sacrifice personal liberty of action for the good of the pupil and in accordance with the common customs of the place in which he is working. Care in one's personal life is very necessary, and the spirit of daring to run contrary to the ideas of the community on social questions is fatal to a teacher's success. 7. In the spirit toward the work of other teachers the manliness or womanliness has an opportunity to assert itself. Jealousy, envy, spreading evil reports and similar traits and actions are beneath the dignity of a true teacher. As a body teachers are ready to help and accord all credit to one of their number who does well. There is room at times for more courtesy in the struggle for positions and other public recognition. Teachers are probably no worse in these respects than other people, but possibly some should be better. 8. The spirit toward the children. Of all the manifestations of the proper spirit this is probably the most important. To assume and maintain the right attitude toward childhood is a fundamental in the success of the teacher. (1). There is much literature that is helpful in this particular. Longfellow has written various things but the best of his when read and studied until the real meaning enters the mind is the poem, "Children." Other quotations are plentiful. "Children are magnets drawing age back to youth again." "Children are the to-morrow of society." Wheatley. "Children have more need of model than of critics." Joseph Joubert. (2). But better than the pages of literature alone is the study at first hand of the child himself. It is to be sincerely hoped that the devotee to scientific child study shall not be allowed to use the expression, "child study," in his way so long as to frighten others from the sensible study that every intelligent teacher should make. There are two sides to the teaching of the child and sympathy with him will blend them in about the proper proportion. These are example and experience. The former gets down beside the child and puts him on his feet. The latter allows him to walk when he has once learned. (3). Gratitude is a plant of slow growth and teachers must not be too anxious to see fruits in the appreciation of their efforts through the expressions of approval by the children. Here is a key point in the characteristics of teachers

in the fact that they are too impatient to see results. Let time be your prime minister. Do the work faithfully and wait for results. (4). Doing the same thing over in a mechanical way has a deadening effect on the powers. One of the beauties of childhood is that it insists on variety and thus keeps the teacher from ossification of soul. 5. The teacher is not a dealer in intellectual wares and it is a mistake to think of work with pupils as measured by the expense one has put upon his education. That education is worth all it costs in the added manhood or womanhood to the teacher and is not an article to be measured in a commercial way. The power ought to be used just as any power should be used, but its importance is not in the intellectual products to be sold to school boards to be dealt out day by day to children of the district. The real teacher is the cultivator of immortal aspirations and the stimulator of undying inspiration.

### 103.—SOME GENERAL THOUGHTS.

There are various formulas for reaching that state where one can meet nearly all the difficulties incident to the daily work of the teacher in the proper spirit, but one good one is found in Drummond's lecture, "The Greatest Thing in the World." Teachers should remember, however, that they are not the only people whose burdens are such that they must constantly keep replenishing their stock of patience, and of the other virtues.

2. It is a dangerous thing for us to fall to pitying ourselves and think that we are martyrs to the cause of human advancement. It is a good thing to remember that, "thy fate is but the common fate of all," and take heart.

3. "The teacher's business is to inspire, to illuminate, to instruct. Goodness is greater than greatness."—Gunsaulus.

4. The world is so calloused with cares and crosses that the one who would brighten it must carry an extra supply of cheerfulness else the indifference will exhaust his efforts before results are reached.

5. If the place you desire is not at hand take one that is. "Most anybody can do a thing he feels like doing, but it takes a true man to do a thing when he doesn't feel like doing it."—Sam Jones. "Get thy spindle and thy distaff ready and God will send thee the flax."

6. Finally—Not our care for the large place in the hearts of others for ourselves, but the large place in our hearts for others is the key to true success.

## II.

**Observation, or School Visitation.**

## 104.—THE OBSERVER OR VISITOR.

1. There are three classes into which school visitors may be divided. These are officials, including school officers, principals and superintendents; parents and sometimes other interested persons who may have no children in school; teachers, who visit and observe as a means of professional growth and improvement. Each individual of these classes will carry away impressions colored by the particular purpose he has in visiting, and by the special relation he bears to the school. All will center their attention, however, on the teacher and find in him, in the main, the explanation for the conditions found. This may be just and there may be much injustice in it at times. But regardless of the questions of fairness it is deeply rooted in the common mind, "as is the teacher, so is the school." All successful operations have a mind and personality back of them somewhere.

2. In the following discussion the "teacher observer" will be chiefly in mind, but some things said may well apply to all the classes named. The observer should approach his task with a proper spirit. The good to be gained from observation is dependent upon the attitude assumed by the person viewing the work. If the purpose is to get a grist of shortcomings of other teachers and other schools out of which to compound a cake of condolence to render palatable one's every day diet of his own mistakes and failures the time spent in observation might be employed to better advantage in some other occupation. Hunting faults dulls one's faculty for recognition of virtues. Enough errors lie on the surface to prevent any person's forgetting their existence. The spirit of the visitor should be the humbler and more generous one of that of a learner. The mind alert to the movement of the school or class work and generously attempting to discover why things are done thus and so, is the only one that can reap a rich harvest from observation of others at work. It is better not to undertake the work of observation at all than to come to it with a mind half-blindfolded and benumbed by assuming the place of an adverse critic. If not a mantle of charity,

at least one of good, common sense should envelop the visitor at all times.

3. Seeking out schools and exercises that give evidences of what the pupil can do in display work rather than what he is in himself in power, health, and control is not the most profitable employment of one's time. To visit a school expecting spectacular displays and exhibitions of educational curiosities is a mistake. If such schools exist they should be visited as holiday diversions and not when one is in the serious occupation of trying to equip himself better as a teacher. The search for the startling and curious are as much out of place in this line as in other lines of educational activity. Evolution is better than revolution, and its movement is such that one may readily keep pace with it, and it is this conservative condition with its impulse of growth for which the visitor should look.

4. The observer should take a broad view. Circumscribed vision results in a crippled mind. Each exercise in management and discipline should be seen and interpreted in the broadest relation possible and not as to immediate results alone. The observer should see each point made in the teaching process not in its present relations only, but also in the broader and larger bearing of the entire lesson and the entire subject. Trying to settle each item as to its correctness as it appears in the progress of the lesson will lead to a narrow view and defeat the very purpose of the observation hour. Not only should the question in the mind of the on-looker be—"Why does the teacher do this; but also, what is the relation of what is now being done to the completed lesson, subject, and the life of the learner?" View not too narrowly.

#### 105.—THINGS TO BE OBSERVED.

It should be remembered that not all of the following points should be regarded as of the same importance. Neither is the order supposed to be that of relative value in any way.

1. Externalities, accessories, or mechanics of the class or school. (a). Condition of the room-floor, desks, blackboard, temperature, ventilation. (b). Seating of pupils and of reciting class. (c). Books, pencils, and other materials—in use—not in use—by class studying—by class reciting. (d). Appara-

tus, adaptability, quantity. (e). General atmosphere—coldness, statue-like positions or such as indicate indifference and disorder, high tension or no tension, animation or lifelessness.

2. The teacher. (a). Manner—Is it that of calm, unruffled dignity that speaks of power without the appearance of attempting to wear its badge on the exterior? Is she really confident of her ability or only playing make-believe attainments? Does the manner show animation and give evidence of power to win the confidence of the pupils? Is the teacher's bearing such as to indicate a nagging disposition and one that invites antagonism? Is the voice well modulated so as to show self-control and power on the part of the teacher? (b). Questions—Is the form proper and calculated to make the pupil think? Are the questions both thoughtful and reasonably comprehensive? Is the order of the questions such as to lead to the sensible development of the lesson points in logical order? Are the questions effective in reaching desirable results? (c). Management—In passing questions around the class and in naming the pupil that is to recite. In answering the questions that arise from pupils. Success in meeting unexpected ignorance and turning the failures of members of the class into advantage for the attainment of higher powers as a teacher. Skill manifested in meeting interruptions and in dealing with inattention. Helpfulness of the devices used and the readiness with which they are applied. Adaptability to the matter in hand of the exercises given to the class to perform. The use of voice, eye, gestures, and expressions of the countenance in a way that reaches the difficulty without attracting undue attention. Economy shown by making a little talking say a great deal. Judgment, earnestness, and persistency shown in efforts made to fix in minds of pupils right lines of action demanded by the interests of the school as a body.

3. The pupils. (a). Is the attitude toward the teacher that of respect, indifference or positive insolence? (b). Do they sit properly and stand squarely on their feet when they recite? (c). Are their answers clear, pointed, audible, thoughtful, and in pure English? (d). Do they ask sensible, time-killing, or impertinent questions? (e). Do they do their work in a manner

that indicates directness of thought and with effective results? (f). Is their deportment in general commendable?

4. The lesson. (a). Is it possible to see an end in view toward which the teacher is definitely leading the class? Or, in other words, do the teacher and class have an aim to be reached in the period? (b). What is done in the way of an introduction that prepares the class for the better understanding of the new part of the subject not yet met in recitation? (c). In the discussion of the new matter are the points made in logical order, comparison properly made, and general truths clearly stated? (d). In closing is there a careful summary of the essential points and some fixing drills to impress them on the minds of pupils? (e). And finally, is the assignment for the next day clearly and carefully made so that there is no mistaking what is to be done in the study hour and what will be expected in the recitations?

Summarize and put into writing your observations with principles on which they seem to you to be founded.

### III.

## Opening Exercises.

On this question of opening exercises there seems to be much uncertainty both as to the purpose and to the material or means to be used in conducting them. To make them effective three things are especially essential. They must have educational value; they must be brief; they must be varied. The following points are given as suggestions and are not presumed to be exhaustive. The thinking teacher will depart from these lines, but she may possibly get some help in starting by reading them thoughtfully.

### 106.—PURPOSES.

1. To get the school started as a unit for the day. Pupils come from various homes bearing experiences to school that are very different in their nature. Some are just arriving when the bell rings, others have been on the ground at play so that in this way minds are not centered on the same things. The opening exercises should be so ordered that the minds may at once be turned into the same channel, thus preparing for a more uni-

fied day's work. A few moments for adjusting one's self to the new conditions are very essential to teacher and pupil alike.

2. To arouse an interest that will encourage promptness. These exercises should be a factor in keeping the tardy record lower than it would be without them. Instinctive curiosity and the feeling that we may lose something have more to do with older people in making them prompt than they probably recognize or would be willing to admit. This tendency should be recognized and utilized in school days.

3. To give general exercises that can not well be given at any other period of the day. This point will be illustrated under the next leading topic and consequently will not be discussed at length here. Often a gathering up of the experiences of the previous day of school or the review of some entertainment of the preceding evening may furnish material for a general discussion with the school that would fit well at any other time in the program.

4. To make suggestions that help in school government and that improve the pupils' ideals. The tactful turning of a playground incident, or the sensible use of a well selected story, may be able to touch some difficult problem of discipline in a manner that no other thing could reach so effectively. A good quotation on industry learned and heartily recited by teacher and pupils together and by classes and some singly, will put an air of earnestness and a spirit of work into a school many times that is surprising. The first few minutes of the day are a great power in the formation of ideals. The minds are then fresh, the interests are all centered in the operations of the day and then ideals that may be realized in the workings of the school room and play-ground may readily be set up for the united effort of the pupils for attainment.

#### 107.—MEANS AND MATERIALS.

1. Stories that appeal to the common experiences of all children and that embody the principles and ideals of right living. Likewise stories that are adapted to special occasions and to the various seasons may be used. Books and stories may be read, but preparing on a chapter or a complete short story and

telling it is much better. The teacher that would make a success of this work as well as in the class work, must cultivate the story "instinct" continually. Random stories will not do and those used must be fresh and adapted to the needs of the occasion. Collections of stories can be found on the market, and while very good to use for these exercises they have not reached their full value in the hands of the teacher if this is the end of the use she makes of them. Probably their greatest value consists in the training that such a volume properly studied can give one in the ability to select stories wisely from fresh sources in papers and magazines. Good short stories and the ability to tell them well will put a teacher at a premium more quickly than almost any other special gift. This is not a gift, but something that may be cultivated by any intelligent, industrious person. A source of excellent stories that should not be overlooked is the Bible. If from no other motive this source is worthy of the highest attention, because it is classic literature. Too many of us are lamentably weak in our common reading of ordinary literature because we do not see the force of the scriptural allusions that fill the pages of the best authors. Thirty-four freshmen in an eastern college when given selections from Tennyson to explain the scriptural allusions gave only 328 correct answers out of a possible 748. The opening exercises in our schools could well do something to offset this condition by using the best of the Bible stories as a means of interesting pupils.

2. Simple experiments that may easily be performed can be used to give variety and interest to the morning opening. Specific gravity, the principle of the action of the siphon, inertia, law of gravity and the like may readily be illustrated by the intelligent, wide awake teacher. Inexpensive little books giving information in performing such experiments are on the market so that any teacher may be equipped. Our school journals furnish much good material in this particular also. The teacher's own native good sense should do much to help along in this line. If she cannot do anything there is probably some bright boy in the school who can furnish enough material of the kind to make a start.

3. Current events are never dry when presented in the right way. The whole school should be interested in this exercise. It might be used once a week, toward the close, so that the weekly papers of the majority of the homes may be brought into use. Until pupils show some good judgment in the selection of the items that they present there might be a revising committee to prevent the waste of time and the cultivation of wrong taste that would otherwise grow up. The teacher should be an advisory member of this committee. Also the teacher should have something to tell if no one of the pupils happens to get the same event.

4. General topics given by the teacher or some older pupils from maps or charts prepared for the occasion. I recall a very interesting talk given by a high school boy on water power of Niagara and illustrated by sensible maps and charts that he had prepared for this special occasion. Papers and magazines are full of material for such talks and the only thing needed is a teacher with ingenuity and energy to make it help in the opening of the school day.

5. Committing extracts and quotations from our best authors and rehearsing them is another means of varying the opening exercises. Eight to ten lines per week will give a good start in a term, but more than this is done in many schools. Several grammar grades the past year where opportunities were not better than in most schools for such work committed within the year as entire schools from seven hundred to one thousand lines. Besides this, classes and individuals did other work of the kind. The way is here, it is the will that is needed.

6. Rapid drills on the fundamental operations in arithmetic can sometimes be used to give spice to the exercises, and if the teacher will put the energy into it to do the work more rapidly than any of the pupils it will not be an uninteresting morning when this is the program. The common tables of denominative numbers can be made so permanent that they will never leave the memory. The arithmetic can furnish a great deal if rightly used.

7. Lists of important dates may be wisely utilized and the foolish superstition that too many, even among teachers, have, that to remember history is not possible because they "never could remember dates," may thus be trained out of pupils before

they realize what they are doing. Of course the event giving the date importance should be associated with its proper date. Dates may thus be suggested for pupils to give the event and the reverse. Groups of important statesmen, authors, and other great names could be made familiar in this manner. Recently in a teachers' examination the requirement in one of the questions was to name three favorite poets and one named McKinley, Dewey, and Hobson. It would seem that there should be some time given to prominent characters in our schools when candidates for the teachers' ranks make such guesses.

8. At the present time there is an effort, and it is worthy the attention of progressive teachers, to give some attention to the works of our greatest artists. The material for sketches of the lives and the work of the great masters is found in the better school journals and in cheap but reliable form in books for sale by firms handling teachers' supplies. An interesting talk by the teachers on the life of an artist and a display of some of his pictures, as reproduced by the many companies furnishing such excellent cheap copies, can be made a useful topic for an opening exercise occasionally.

9. Another drill of great value is the presentation of a few words of difficult spelling, pictures, lines, plane figures on the board or chart exposing them for a very brief time that concentration of attention may be secured. After the things exposed have been covered the school may attempt to spell the words, draw the figures or write names. Objects may be used for the same purpose. The object in such an exercise is not especially the learning that may be done by the pupils, but the better training in ability to hold the attention closely and intensely on one thing at a time. If more time were given to such training there would be less wandering of the pupils' attention when they try to study. Try it.

10. Of course it is understood that music forms a good means for a part of the opening exercises. When music is not regularly taught, some ideas of the technical side may be given occasionally if done in an interesting way. Let the pupils sing and memorize good songs, and do not kill the interest in the music by trying to make every pupil sing. If a pupil cannot sing,

he should pay attention, however. Some stories about the early life and experiences of familiar composers would be well received by pupils.

#### IV.

### Reading and References.

#### 108.—THE TEACHER'S READING.

Teachers should be thoughtful readers. There is no better general rule than the familiar and oft quoted one of Bacon's, "Read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to weigh and consider." As to what one should read in this age of many books it is not so easy to decide. It is not easy either to get a great deal of helpful advice, for the person advising knows that the books he may suggest are likely not to fit well in the mental habits and experiences of his questioner. There are some general thoughts, however, that one may venture to give on the subject of reading and references. 1. One should own most of the really valuable books that he reads. The feeling of ownership makes the book a closer companion. It is always at hand and among the most valuable time that one spends in reading is the few minutes that may be designated as the odd-moments, seasons when he picks up a favorite book and re-reads a thought or gets a brief view of the land ahead in the author's treatment of the subject. The majority of people must do most of their reading in these odd-moment periods, and thus need to have the book conveniently near. Many books should be read consecutively even though little is read at a time. Some may be read by special chapters from table of contents and index because of the use one can make of the matter at once. This is very profitable reading. A second great reason why one should own the books he reads is that he may mark the things in them that are best for him. Marking the book is more helpful for the time spent on it than note making, and the suggestion is then always at hand and not in a misplaced note book when one wants it. A very effective means of marking is to underscore in blue pencil the passage that seems best. A book read and marked in this

way is much more valuable than one that must be returned to a library unmarked. It can be re-read by reading marked passages. Also in second reading the same book may be marked with a red pencil showing the additional thoughts that seem impressive from this closer acquaintance. Each re-reading of book or chapter should indicate some change in the reader by the marks that are left in the book. 2. Watch for the revised editions when purchasing books. These may not always be improvements over the former edition, but the author has found some things that he thinks are better and it is quite probable that the revision makes the book more valuable. The date of copyright or the date affixed to the note discussing the revision should be noticed rather than the publisher's date on the title page. Webster's dictionary sold by cheap stores and street fakirs may be published very recently and still be of the edition of 1847. Books made cheap in that way are worthless. 3. All, or nearly all, of one's reading should have some thought in it that is applicable to some phase of his daily life. Looking for these thoughts and seeing when they fit is a very profitable side to his reading. He should not talk to others a great deal about things he thinks he sees in certain books if they are liable to discourage him by insisting that he is reading too much between the lines or reading into sentences what is not there. It is a dangerous thing, it is true, to read one's prejudices into a book. On the other hand a really good book is valuable much oftener for what it suggests to the reader than it is in the cold facts that it gives him. Get the author's meaning, but let that grow larger in you by its suggestiveness. In this connection it may be said that books are judges of readers far oftener than readers are accurate judges of books. When a reader lays aside a classic or a strong treatise and says it has nothing for him the criticism if any is to be made at all, is a criticism of the reader and not of the book.

#### 109.—REFERENCE BOOKS.

1. In various places throughout this pamphlet references are named because they will be helpful with special features of the work. In no cases are these references considered exhaustive in scope. Many others on some of the same topics could be

named. Excellent collections of books are named in different publications so that little space will be given here to lists of miscellaneous books. Teachers should procure and consult frequently the list of books selected under the new library law by the state board of examiners and published by the State Educational Department, at Des Moines.

Firms issuing books send excellent descriptive catalogs which give much information, and these should be procured and preserved. Whenever one is teaching where there is access to a library the opportunity to use it should not be neglected. In geography, reading, history and literature more or less use can be made of such works as Stoddard's Illustrated Lectures, Earth and Its Inhabitants, Baedeker's Guides, Statesman's Year Book and others of the class. Most of these are not within the reach of teachers to purchase, but are suggested as one class of books of which not enough use is made by teachers who may have access to them. It would not be a wise use of space here to try to name books on academic subjects in general, but a few dealing with special sides of the teacher's work are given as suggestive from which teachers may profitably select and read.

Art of Questioning—Landon.

School Management—White.

Theory and Practice of Teaching—Page.

Talks to Teachers on Psychology—James.

Mistakes in Teaching—Hughes.

How to Secure and Retain Attention—Hughes.

How to Keep Order—Hughes.

Dickens as an Educator—Hughes.

Art of Securing Attention—Fitch.

Waymarks for Teachers—Arnold.

Reading; How to Teach It—Arnold.

How to Teach Reading in Public Schools—Clark.

A Study of the Child—Taylor.

Nature Study—Jackman.

Leonard and Gertrude—Pestalozzi.

Educational Reformers—Quick.

On Stimulus in School—Sedgwick.

Unconscious Tuition—Huntington.

- The Story of the Mind—Baldwin.  
Practical Hints for Teachers—Howland.  
Apperception—Rooper.  
Point of Contact in Teaching—DuBois.  
Apperception—Lange.  
Talks on Pedagogics—Parker.  
Teaching and Teachers—Trumbull.  
The School Master in Literature—  
Jukes-Edwards—Winship.  
Art of Study—Hinsdale.  
Method in Education—Roark.  
Philosophy of Teaching—Tompkins.  
Thinking and Learning to Think—Schaeffer.  
Education—Spencer.  
Self-Culture—James Freeman Clarke.
- Art of Illustration—Spurgeon.  
The Blackboard in Sunday School—Bailey.  
Illustrative Blackboard Sketching—Hintz.  
Easy Things to Draw—Augsburg.  
Easy Drawings for the Geography Class—Augsburg.  
Chalk Modeling—Heffron.  
Tracing and Sketching—Gillan.  
Geography by Map Drawing—Kellogg.  
Picture Study in Elemenatry Schools—Wilson.  
How to Enjoy Pictures—Emery.  
Biographies of Great Artists—Educational Pub. Co.
- Turning Points in Great Careers—Thayer.  
Men of Business—Stoddard.  
Pushing to the Front—Marden.  
Getting on in the World—Mathews.  
Some collection of good stories.  
A collection of anecdotes.
- General Method—McMurry.  
Method of the Recitation—McMurry.  
Special Method in Reading—McMurry.  
Special Method in History and Literature—McMurry.

Special Method in Science—McMurry.

Special Method in Geography—McMurry.

Essentials of Methods—DeGarmo.

Herbart and the Herbartians—De Garmo.

Ufer's Pedagogy of Herbart—DeGarmo.

The group of books beginning with Art of Illustration by Spurgeon and closing with Biographies of Great Artists, deals with the questions of illustration and art. The first one is a series of lectures given by the great preacher on the question of principles of illustration. It is very readable and equally valuable if studied properly. The titles of the others suggest their nature as dealing with graphic illustration, a feature that all teachers should study. The later books mentioned are to help the teacher and pupil from the other side in cultivation of ability to see beauty, reality, and principles of illustration from study of standard works of art. This professional study should not be allowed to monopolize the attention so that the art and beauty are neglected. Pictures should be studied more.

The list following may seem a strange collection to recommend for teachers, but it is suggestive of a valuable line of reading that teachers should follow. It need not be these particular books. Others of the kind, and the book-stores are well supplied with them, are just as good and some may be better. There is a picturing of life in such books that helps one to get higher and better ideals and that supplies many a good illustration and story to arouse better ideals in pupils. Biographies and anecdotes are almost professional lines of study for teachers.

The last group beginning with General Method gives a brief list of books that have exerted a decided influence in clearing the minds of teachers as to the actual movements of the pupil's mind in learning, and the consequent method followed by the teacher in teaching. These books have done more, probably, than any other one similar group that can be found to arouse thought on the part of teachers as to the actual operations in the recitation period. They should be studied, marked, and every suggestion compared by the teacher with the actual work she is doing in her classroom. If the teacher will industriously

try to see how she is applying the steps of instruction, how they conform to the demands of the learning mind, she can not fail to be benefited by the study of these books. It is not the intention here to set these out above all other books by this special mention, but since they are so adapted as a group to a particular need of so many teachers, if teachers will study them and try properly to apply the suggestions, it seems admissible to make this special mention. Every book in the entire list and innumerable other ones, are very valuable for teachers, and the admonition we wish to give is, that every teacher study and try to make application of the help that may be obtained from such books. At least a little should be read each day. Read, think, apply and grow.

## V.

### Reviews.

#### II.---NECESSITY AND TIME FOR THEM.

Repetition is very necessary in making lasting impression and close associations. Because of this there is a place for specific reviews in school work. The old way of reviewing at stated times, once a month, or twice a term, is probably not the best way of determining the time for these reviews. Especially is that plan bad when it leads up to an examination. It encourages cramming at the last and leads the pupil to think he may slight his daily work because it will be reviewed any way before examination. In teaching, every effort should be made to avoid giving the impression that some things may be slighted because the subject is to be reviewed any way. These reviews should be governed by the condition of the work rather than by time periods. When a large unit or division of the subject has been covered it may be well then to pause for a general survey of the ground that has been covered. This may come any day of the week and any week of the term.

#### III.---THE NATURE OF REVIEWS.

They should be new views instead of mere repetition of ideas as they appeared to the mind the first time they were met. The early ideas of the subject should now stand out before the pupil's

mind in a clearer and more definite view because of the development he has received from the later study. They should result in a general comparison, sifting, classifying and readjusting of the contents of the mind. In the daily lessons there have been efforts at elaboration, or working out conclusions, by comparisons and contrasts or deeper views of former and newly presented notions. These should result in careful statements of general truths that are derived from this act of elaboration. In the review the general truths, definitions, principles, and rules are to be regarded more than the individual facts from which they were derived. Daily work develops general truths, reviews seek more to relate them in the larger body that makes up the entire subject. Reviews seek principles and show both pupil and teacher where the weakness is if these principles cannot be recalled and applied. The review partakes of the nature of comparisons, contrasts or working over of daily generalizations into larger general truths, and then the broader application of these larger rules and principles in the larger field where they may properly belong. They are summaries of the broader principles that have been developed from week to week.

#### 112.—ASSIGNING AND CONDUCTING,

The assignment of review lessons is an exercise of peculiar importance. It cannot be done hastily and by pages of text alone. Definite tasks must be marked out for pupils to accomplish. These should be of such nature that he must do some thinking for himself. A hasty conning of pages of the text studied in past weeks is not sufficient effort to be dignified as a review. There probably should be little new matter, and possibly none at all suggested for the investigation, but the questions and directions given at assignment should be such as to require him to approach each topic and work out his answers in a different way than the one taken when he studied it for the first time. In making assignments of reviews, tables of contents, topicals, outlines, and the index of the book should be freely used. When the class appears for recitation questions may be given out, topics assigned, drawings required, models and diagrams put before the class as each one's part in gathering up the results of the work.

A part of each review should be written and much should be oral. It is not possible to be too particular that pupils shall express themselves definitely and clearly, and that definitions, principles and rules shall be carefully carried in mind and stated accurately. In fact, the review should just add here another operation to what is daily done in having pupils talk from what they *know* and not from what they *think*, excepting when it is a question of opinion of a conclusion from their own judgment and reasoning. Some reviews should come when not expected. There is no better exercise for the mind in making it ready for the daily incidents and surprises of life than taking it when off guard and letting the pupil see what he can do and when he is most at the mercy of circumstances. These unexpected reviews lead to a command of one's powers and a readiness in calling up desired knowledge that are valuable qualifications in the stern affairs of daily life. They should have something to do in preparing a person to meet responsibilities without becoming "so scared he couldn't think." No time need be lost if the class exercise is finished before the time has expired (a thing that rarely occurs with a teacher that is full of the subject and a class that is interested) for that is a good opportunity to give some of these unexpected reviews. What the teacher does with these occasional odd moments has much to do in showing her power as a teacher. In the history and reading classes geographical reviews should be coming up constantly, and it is equally valuable when studying a region to have facts from history and the reading that may belong with that region stated briefly and quickly. If pupils do not know these facts this is probably not the place to turn aside to do a great deal of teaching of the other subject, but even then a mention could be made of the facts with the suggestion that we shall have them fully discussed in the history or reading class. Principles of arithmetic should constantly be coming up in the algebra class. The concrete problem writing of the pupil in the arithmetic class should get its materials from the other subjects studied. It is hardly necessary to suggest that there should be no definite and set way by which every review is conducted. Sometimes it may be by questions, sometimes by materials suggested from which models embodying pupils' ideas are to be

made—modeling relief of a region as a pupil's review of these points is an example. The best and most essential reviews of all, however, are those that are made daily in preparing the pupil's mind for the advance work and the rehearsal of those facts with the new ones in the process of elaboration or comparison and generalization, and in application. Finally, it is urged, that each day's teaching should be done as though the topic was being handled for the last time. This does not mean the making of senseless and uninteresting repetitions of the same thing in the same way, and sometimes called "drill," but it means rather the working over, summarizing and clearly stating the principles learned until they will form such definite associations that they may be well fixed by the proper application and are ready as preparatory matter for advance work. Fellow teachers see if you are not losing time daily and wasting time in stated reviews because things were not well organized and fixed in the pupil's mind when you taught him the facts the first time.

## VI.

### Becoming a Teacher.

#### 113.—BEFORE THE FIRST DAY OF SCHOOL.

1. Qualifications that the person must have as required by law for the protection of the interests of the children do not seem usually to be as high as they should. These qualifications are loosely stated as intellectual, age, and moral. Certain intellectual development is demanded and to attain this and the moral standard of judgment, habits of right action, and ideals necessary to make one a safe leader of children necessitates some years of growth which it is assumed are reached at the minimum age at which one legally may become a teacher. 2. Since these qualifications must be found in the would-be teacher there must be some power for determining when they are attained. School law has vested this examining power in the county superintendent. Back of him stands the state and he is merely its agent to do what the law requires. He is often foolishly blamed and unjustly abused for doing what the law requires of him in ac-

cordance with his conscience and oath of office. On the other hand he is the legal supervisor of the schools and school interests, and it seems too bad that so much of his time should be taken up with the clerical work of the office that this very important part of his work frequently must be neglected and schools thus be less efficient than they might otherwise be.

3. After the aspirant for teacher's honors has met the legal tests the next step is to secure the school. In this there is a legal side in seeing members of board, securing election, and signing contract. The most essential things to which the candidate's attention should be called are those that have a bearing on convincing the board of his fitness for the place he seeks. The certificate is the legal recommendation of the superintendent that the person is qualified so far as his tests can show. One or two testimonials from other well known persons may be useful. The practice of going about with a pocket full of "to-whom it-may-concern" statements should be discouraged. If one grows he should soon outgrow the statements that the maker ought at first to dare to write, and if he does not grow he should not be carrying about a list of papers that on the face of them give more credit than he deserves. Sometimes a teacher is recommended in this indefinite way with the understanding that he is a candidate for some particular school, and later the same paper is used when trying to secure a position for which the writer would fear to recommend him. This is unfair to all concerned. One should protect his friends by not asking for these general statements. There is another side to the matter of securing the favor of school officers that is in great measure within the hands of the teacher. This has reference to the tact, judgment, manner, and general appearance of the candidate when making application. A modest but frank and positive manner carries weight. Proper dress, good language, recognition of human nature in seeing how to approach a stranger, and similar qualifications are very essential. These are things in which one may improve if he tries to be observing and thoughtful. 4. When he receives his contract and the key to the school house is given him there are still many things to do. He should know before the day for school to open in what condition the house is to be found. Heating, ventila-

tion, necessary apparatus should be understood. If in the country and he is to do janitor work he should see that the house is swept and dusted. Condition of grounds, and well or other accommodations for securing water should be noted and any thing that can reasonably be done should be done to make everything ready for the first morning. Within the school house the teacher's desk should be looked over and the contents examined, as a means of knowing just what may be at hand that may be useful. All apparatus and books should be put in order so as to be ready for the use of pupils and teacher when needed. The register left in the district by the previous teacher should be obtained. From this the names and classification of pupils may be learned. From the program left by the previous teacher a temporary program for the first few days should be made out. It would be a kind thing for the retiring teacher to suggest what changes in the program he leaves would in his judgment best adapt it to the opening of the next term. Also each teacher on leaving a school might leave in the desk or register a plat of the room showing the seating as he had it. Suggestions as to any changes that he would think advisable would be in order here too. If no plat is left the teacher about to take charge should make one and have it ready to put names of pupils on it as they are seated the first day as a means of learning names and characteristics more quickly. It would likewise be a kind thing for the teacher at the close of the term to suggest to the pupils that they should take hold earnestly with the new teacher and not quote the ways of past teachers to him. Another thing that should be determined before the first day is the lessons that will be assigned the first morning. By borrowing or purchasing the teacher should have access to the books that are used and settle in his own mind the lessons he will assign at the opening of school the first morning. The better his preparation is for these assignments and for teaching the same lessons the more hope there is for his ultimate success.

#### 114.—THE FIRST DAY.

It is an important hour in the life of any young person when he as teacher calls school for the first time. His success for the entire term in great measure depends on the outcome of the next

few hours. If he can start well and have every thing going in a few minutes now he is sure of the co-operation of most of his pupils from the outset. Hesitancy, uncertainty, and delays are very dangerous just at this time. A few brief admonitions are given for the benefit of the young teacher. Be calm. Make no set speech. Say very little and make that little effective by going to the point and speaking so that you may readily be understood. Unless there has been some definite custom as to opening exercises, or you are exceptionally sure of your own powers, have no definite opening exercises the first morning, but proceed at once to get the school to work. There will be a moment of expectancy when all will be quiet. That is the teacher's time to make his beginning. If pupils are old enough and there are enough present to make it worth while, slips of paper may be passed to get the names and ages of pupils. Extra pencils should be in the hands of the teacher to supply the boy and girl that will be likely to be without pencils. The teacher should manage to have pupils help in passing these things so that he may remain quietly at the front of the room to direct. In small schools or with small children the taking of names may best be done at the first recitation. Whatever may be done in this respect assignments of work ought to be promptly made. It is pardonable here to make assignments quickly and not go into detail as in ordinary class work, for so many are waiting that not much time can be given to each class. In an ungraded school the larger ones should be given assignments and started at their studying, and then more time may be given to those just starting. All should be at work as soon as possible. The temporary program should be followed and recitations taken up promptly. The teacher that goes through the first half day well has made a good beginning, and by keeping eyes and ears open and mind alert should make the term's work a success.

## VII.

### View of Past Year's Work.

#### 115.—GRAMMAR GRADES.

The statement of the arithmetic work in the pages given to that subject in this outline has connected with it some sugges-

tions on the teaching of that branch and teachers may make use of it for that purpose as well as to see what the classes have done in the past. In other subjects the outline of work covered is given in the briefest possible form and still have it intelligible as a guide indicating about what amount of space given classes should be able to compass within a certain time. The outline is in no sense put forth as a permanent course of study. It is merely a suggestive guide to practitioners in their efforts to determine what would be a reasonable amount of work for the classes that come under their charge. For the purpose of better unification or closer correlation whatever change may seem best will be made at any time.

## Arithmetic.

### FIFTH GRADE—FIRST TERM.

Work based upon Werner Arithmetic, Book I., pages 40 to 154.

The following topics are treated this term in somewhat spiral arrangement. The fundamental operations with simple whole numbers of former grade receive attention. Very much of the work is to be done orally with the pencil as an aid only where largest numbers are used. This is the nature of the work all through the coming terms, thus keeping the idea that written arithmetic is not something apart in nature from mental or oral, but simply a stage of the latter where the pencil becomes an instrument in manipulating numbers too large to be conveniently managed by the other process. From the first the pupil in all his work should frequently be held to the three steps in full: telling the meaning of the indicated combinations before him, performing the operations suggested by this meaning and making a concrete problem embracing the same conditions as those with which he has just been engaged. This should be kept up in all the work with other operations besides those dealing with the simple numbers alone. Numbers up to one thousand may appear, but most of the work is done with smaller numbers since teaching principles and developing skill can be more readily done by use of quantities more nearly within the grasp of the understanding of the child.

### Fractions.

These are studied under all the operations of addition, subtraction, multiplication and division. Fractions with denominators running up to twelve are used. Relations of half, third, fourth, sixth to twelfths are discovered and employed in applications to problems. When necessary concrete illustrations may be given by use of objects or drawings, but it should not be in demand very long at a time with pupils of this grade. See that the work is made so simple and easy by a liberal supply of supplementary work that the child is prevented from getting a superstition that there is any thing especially difficult in the operations having fractions in them.

### Denominate Numbers.

Continuation of work of former grades. Time—seconds, minutes, hours, days, weeks, months, years. Square measure, square feet, square yards. Dry measure—quarts, pecks, bushels. United States money. Denominations of these treated through the processes of addition, subtraction, and multiplication. Much drill in oral problems.

### Measurements.

Length for short distances. Shapes of triangle, square, oblong, pentagon with special reference to meaning of terms perimeter and area. Much drill in finding areas of surfaces easily imaged without material surfaces at hand more than for a mere starting point. Special attention to the fact that there can be no product in such expressions as follows: 3 inches multiplied by 2 inches. All such use of concrete multiplier should be prevented from the start. This is one of the places to begin laying the foundation for the principles of multiplication that the pupil may thus be led to see for himself as he advances further.

### Decimals.

The work in decimals starts with tenths as soon as this denominator is reached in the treatment of common fractions, and both ways of writing tenths are taught at the same time. Mixed decimals with tenths, (3.2), read in the two ways, "three and two tenths, or thirty-two tenths." This should be kept continually

in view. All the fundamental operations performed upon the numbers embracing decimal tenths just as with other numbers Treating the decimal here as a form of concrete number without perplexing the pupil with the term, concrete, will prevent much difficulty later.

In connection with the work in all these lines there is room for much drill in rapid addition and the other fundamental operations. A little time taken for drill each day is better than taking a whole period for it at stated times. It should be remembered that by this spiral arrangement the pupil does not work so many weeks at the first of the term on simple numbers and then a corresponding length of time on the others in other parts of the term but within ten or twelve days he passes through all the kinds of work and then takes up a new circle again. This arrangement gives variety, keeps the processes unified, and makes use of all the development gained in one unit in the next. New views are constantly being given in this way, but they are really reviews since the kind of work is the same as taken a short time before, but a few new points are added and the problems and exercises are fresh and new. With plenty of supplementary drills this plan gives good results. Teachers should be careful to read the author's suggestions at the beginning and all the notes and directions on the pages wherever any are given.

#### SECOND TERM.

Same book continued and finished.

##### Simple Numbers.

Numbers up to ten thousand. Smaller numbers in all the fundamental operations. Much oral work and plenty of supplementary material given. Definitions of the terms used in the process of the fundamental operations learned through illustration and application in problems. These applications are to be made so carefully that no errors in use of principles to be discovered and fully learned later shall have been made. In fact, this is the time for leading the pupil to see principles through his constantly doing a thing in the same way. These principles may be formulated and committed a little later.

### Common Fractions.

Fundamental operations on fractions and mixed numbers continued. In division reduction to common denominator is employed rather than inverting the divisor. The work is so planned that the pupil will readily discover the shorter method of inverting the divisor for himself if properly led. Denominators treated as in the past work as of the nature to make operations similar to treatment of simple concrete numbers

### Decimals.

Treatment the same as in previous term excepting that the number of decimal places is increased to hundredths.

Co-ordinate with Decimals and Measurements. Former term's work continued and made more complete by use of new matter of similar nature to that of previous lessons. In addition the table of weight is given and fixed in mind by use in exercises similar to former operations.

### Measurements.

Square foot, square yard, cubic measure in simple form with much drill material. Drawing and use of objects is allowable until new forms are understood, then the imaging power of the pupil should supply the picture of the thing named instead of calling for constant use of the material object.

### Ratio and Proportion.

By use of materials familiar from past work the nature of these new processes is made clear. Pupils read and answer orally many problems of this kind: "If 25c pays for 7 lemons, 50c pays for \_\_\_\_\_." The work under this head is given in great variety and leads easily to the solution of problems of this nature: "Two-thirds of a certain number is 6. What is the number?" By care here the child may be led to see relations in such a manner that the long process of analysis may be avoided. Repetitions of simple teaching exercises that train the mind in sensible forms of analysis instead of complex forms of figure juggling are what are needed. Not explanation but a new start from past work already familiar thus leading the pupil to find his own weakness and see the remedy should be the teacher's rule.

### Conclusion.

At the close the definitions and tables that have been illustrated, learned and applied are to be reviewed. These should be stated in clear, exact language as a summary of the two term's work. This summary is likewise to prepare for the advance in which old ideas in more difficult applications will appear and new ideas will be introduced.

### THIRD TERM.

Werner, Book II., pp. 11-71.

#### Simple Numbers.

The new terms introduced and taught orally through illustration of their meanings are distributed over the term's work as they are needed to make proper headway in the other divisions of the subject. These terms are, divisors, prime and composite numbers, factor, prime factor, multiple, common multiple, least common multiple.

#### Common Fractions.

Common denominator, terms, reduce to lowest terms, reduce to whole or mixed number, improper fraction are the new ideas to be learned. If the author's notes are carefully followed and the work done as thoroughly as suggested much trouble may be avoided in later work.

#### Decimals.

The decimal thousandths now appear. Mixed decimals to be read carefully in the two ways, with and without the use of the word "and." Relation of decimals and our money system. Tenths, hundredths and the like of simple numbers shown by pointing off the proper number of places from the right. One tenth found thus then two tenths by multiplying this result by two and by a continuation of the process the pupil may see the reason for pointing in the product and in time sees the rule for indicating the combined number of decimal places in the product. Division of decimals as in previous work treated as division of concrete numbers.

### Denominate Numbers.

The ton, pounds in the bushel of common grain, gross weight, net weight, tare, long measure. These new terms taught and applied along with all the previous denominate numbers taught.

### Measurements.

Cubic inch, inch cube, cubic foot, foot cube carefully taught. Various angles learned. Rectangular solids, wood measure. Square rod staked off in school yard and terms made plain.

### Ratio and Proportion.

This is kept up as in the past term extending it to the new fractions and denominate numbers learned.

### Percentage.

In the work in decimals the pupil has become very familiar with the manipulations of hundredths. He now makes use of this knowledge in the special operations known as percentage. The equivalent expressions of the decimal hundredth, the common fraction, and the number followed by the per cent. sign are taught side by side from the first. Fifty per cent. equals .50 equals  $\frac{1}{2}$ . All the equivalents for the common aliquot parts of a hundred are made a matter of drill for the class. Also the three operations are presented simultaneously. 50 per cent. of 10 equals \_\_\_\_\_. 10 is 50 per cent. of \_\_\_\_\_ 5 is \_\_\_\_\_ of 10.

### Conclusion.

The number story or concrete problem should frequently appear in the work and pupils should be required to state the meaning of the operations they expect to perform before attempting the solution of the problem. The teacher should see that she gets into the true spirit of the work by studying the ground previously covered by the class. Also every suggestion should be tested by the ever recurring question: "Why should this be done in this way?" This question is not that of the critic, but that of the learner searching for the reason for the effort he is advised to make. It should never be forgotten that rapidity and accuracy are the fundamentals of good teaching of arithmetic. Without accuracy the work is of no consequence. The

business world and the moral world demand that the pupils' efforts shall be accurate in fact as well as based upon the right principles.

### Arithmetic.

#### SIXTH GRADE—FIRST TERM.

Werner, Book II., pages 71-121.

##### Simple Numbers.

Average to be found when cost of several articles is given and the meaning of terms understood. Creamery accounts, time book of day laborer, receipts from ticket sales at county fair and similar matter to furnish the material with which the operations are performed.

##### Fractions.

Continuation of former work seeing that meaning of every exercise is perfectly clear.

##### Decimals.

The critical stage in the multiplication and division of decimals. The author makes suggestions that should be carefully put into practice.

##### Denominate Numbers.

Table for measuring quantity of paper. How grocer's bills are made, gross, hundred weight and the abbreviation for this taught.

Measurements, Ratio, and Proportion, Percentage, the work is very similar to that of the previous term in the fifth grade. It should be noticed that the materials used in one department of the subject may furnish starting points for work in several of the others. Relations of certain quantities in denominate numbers will be convenient teaching material for ratio and proportion and likewise in percentage. In this way the ideas of previous work may be kept well in mind without the dullness to result from using the same operation all the time on one kind of matter. Accuracy should be required in all operations. Rapidity is good and necessary, but rapidity without accuracy is all a waste of time, even though the time taken in performing an exercise is short.

## SECOND TERM.

Book same as in previous term. Pages 121-171.

Simple Numbers, Common Fractions, Decimals. Do not fail to follow the author's suggestions.

### Denominate Numbers.

The manipulation of dates in finding the difference in time between two dates is introduced and it should be clearly taught. Just here is where one of the difficulties that confront pupils in calculating interest should be forever settled. Much of the trouble in finding interest in the later work will come from the inability of the pupil to find the time accurately when the dates are given for him to perform that operation. The mistake is not one that should be charged to the difficulties of interest, but rather should be seen to be one in his management of denominate numbers. In this term the Metric System is introduced and it should be presented through that common metric unit, the meter, from the first. This system should be taught as a system of measures just as real as our own cumbersome system and not compared with the common measures. Let it be learned for its own value. Pupils can image a meter as easily as a yard. If presented in the proper way it is seen to be simple and so readily learned that pupils enjoy handling the numbers in this system better than on the common denominate number scales. Start from the meter and see that it is properly seen and then the divisions and the superstition that this is a particularly difficult system will vanish.

### Measurements.

Comparisons of areas and lumber measurements form the line of work in this topic. The practical method of basing operations in computation of lumber bills upon the twelve-foot board is employed and the teacher should see that the notes and suggestions in the book are fully understood and used.

### Ratio and Proportion.

Definition of ratio now taught. Terms, antecedent, consequent, illustrated and learned. Material for operations found in other divisions.

### Percentage.

Same as last term in nature but advanced with new material and a little more difficult problems to solve. Operations in commission are introduced.

The arrangement of the work is such that review is almost Reviews.

The arrangement of the work is such that review is almost inevitable, but in order that the pupil may have practical drill in finding for himself the meaning of problems and the principles applied in their solution he is given at the end of each ten-page unit an arrangement of miscellaneous work. The teacher should be careful to make all the use of this that is possible and sometimes extra matter may be added as it seems to be needed. This new matter can be selected and graded by the teacher so as to reach the particular difficulties of individuals, and thus lead them to find the way over the difficulty without the aid of others.

## THIRD TERM.

Book same as in previous term. Pages 171 to 221.

### Simple Numbers.

Common multiples and the factors that they must contain from each number. Prime factors. Least common multiple of numbers prime to each other. Drills.

### Fractions.

Least common denominator. Past operations continued. Drill work.

### Decimals.

As in the past. Decimals to millionths written and read quickly and accurately.

### Denominate Numbers.

Metric system continued. Still presented as distinctly a system by itself without comparisons with the common system of denominate numbers. Meaning and use of specific gravity taught.

### Measurements.

Practical method continued. Rules discovered by pupils. Meanings of such terms as stock boards, fencing, dimension stuff, scantling, and timbers made clear.

### Ratio and Proportion.

Relation to fractions shown. Couplet, proportion defined. Cubic foot and gallon compared.

### Percentage.

Loss and gain and on what reckoned. Commercial discount. Interest introduced.

Reviews and miscellaneous exercises given as in past terms.

### Seventh Grade.

Werner, Book II. Pages 221 to close.

### Simple Numbers.

Short methods of simple operations. Square as applied to numbers. Square root introduced.

### Fractions.

Simple, complex, compound illustrated and defined. Square root of fractions taught.

### Decimals.

Common fractions and lower denomination of denominative numbers changed to decimal forms. Follow the suggestions of the author very carefully.

### Denominate Numbers.

Work based upon the practical experiences of the business of the community. Reductions treated.

### Measurements.

Applications of former principles through problems. Streets and city blocks. Section of land. The township and numbering of sections.

### Ratio and Proportion.

See former work. Barrel and cubic foot compared. Ratio of square and circle. Sphere and cube compared. These points may be shown objectively at first.

### Percentage.

Per cent. of last month's attendance of the school. Interest. Here the New Practical Arithmetic is to be consulted in respect to finding the interest at rates other than six per cent. Notes—face, partial payment become familiar terms to the pupils.

### Conclusion.

The work of the term is closed by a summary through the definitions, principles, rules, and tables. One who has followed the work will have observed that the pupil has been at work a long time doing the thing before principles and definitions are stated in full. Not every thing that may be done in any of the departments of the subject is forced upon him at once. All points are given their fuller meaning by gradual growth and in a way that seems to keep pace with his developing powers.

## SECOND TERM.

### Werner, Book III. Pages 11 to 120.

The pupil is now far enough along to profit by a topical arrangement of the matter in arithmetic. As in past work the teacher should observe most carefully the suggestions of the author both at the opening of the book and in the notes on the pages as the subject progresses. The work in algebra, geometry and miscellaneous problems embracing these subjects is omitted the first time over the book. All the fundamental operations deal with quantities having fractions, decimals, and denominate numbers in them. All principles are to be carefully fixed by drills. See that no principle is violated. The fruits of the earlier teaching should show here in the readiness with which pupils can see and apply principles.

As a separate topic fractions come in for a full share of attention treating of the parts of the subject that could not well be treated in the fundamental operations. Great care should be given to accuracy in all the operations from the beginning.

## THIRD TERM.

The time is to be spent upon the further development of the topics of percentage. In addition to the extension of operations introduced in former terms new topics are taken up. Taxes, in-

surance, stocks and bonds now come in for a share in the study. The work laid out in the text taken as a guide is to be freely supplemented with material from other arithmetics at hand that may be given the pupil whenever the treatment of a topic seems to demand more attention than the book in hand gives it. In this way the class may have a full discussion from new and fresh material. A general survey of the ground that has been traversed should be taken at the end of the year. This is not a formal review, but rather a new view to see how much more topics that have once been laid aside have in them when the pupil looks at them again with his later knowledge at his command.

## Geography.

Fifth Grade—Class Entering in the Spring.

Picturesque Geographical Reader, Second Book, King.  
1-120.

Full year classes had the work indicated in the following outline:

Fifth Grade—Section B.

First Term.

Werner's Introductory. 7-70.

Second Term—Class Now Fifth A, 5-A.

Werner's Introductory. 59—122.

Third Term—5-A.

Our World and Its People—Our Own Country. 11-88.

Fifth Grade—Section A.

First Term.

Our World and Its People—Our Own Country. 102—finished.

Second Term—Class Now Sixth C, 6-C.

Tarr and McMurray's First Book. 1-124.

Third Term—6-C.

Tarr and McMurray's First Book. 124-195. Much supplementary work was done, using Carpenter's North American and similar helps.

Sixth Grade—Section C.

First Term.

Picturesque Geographical Reader, King, Book II. 90-302.

Second Term—Class Now Sixth B, 6-B.

Tarr and McMurry's Second Book. 1-76.

Third Term—6-B.

Tarr and McMurry's Second Book. 76-156.

Sixth Grade—Section B.

First Term.

Carpenter's Geographical Reader—North American. 9-143.

Second Term—Class Now Sixth A. 6-A.

Same as previous term. 143-352.

Third Term.—6-A.

Our World and Its People—Modern Europe. 13-132

Sixth Grade—Section A, Division 2.

First Term.

Carpenter's Geographical Reader—Asia. 9-154.

Second Term—Class Now Seventh, Division 2.

Same as previous term. 154-301.

Third Term—D 2.

Werner's Grammar School. 1-156.

Sixth Grade—Section A, Division 1.

First Term.

Modern Europe, Our World and Its People. 13-213.

Second Term—Class Now Seventh, Division 1.

Same as previous term. 213 and finish.

Third Term. D 1.

Werner's Grammar School. 1-156.

## Language.

Fifth Grade—Class Entering in the Spring.

DeGarmo, Book I. 9-45.

The following classes were in the school all the year and the work is indicated for each class each term throughout the year.

Fifth Grade—Section B.

First Term. (5-B).

DeGarmo, Book I. 9-40.

Second Term. Now Fifth A, 5-A.

DeGarmo, Book I. 40-75.

Third Term. (5-A).

DeGarmo, Book I. 75-122.

Fifth Grade—Section A.

First Term.

DeGarmo, Book I. 108-141.

Second Term—Now Sixth C, 6-C.

DeGarmo, Book II. 1-45.

Third Term—(6-C).

DeGarmo, Book II. 44-65. Six weeks given to taking a new view of the pages from 9 to 65 substituting the Story of the Gorgon's Head as a foundation for the composition work instead of what was previously used from the book.

Sixth Grade—Section C.

First Term.

DeGarmo, Book II. 1-74.

Second Term—Now Sixth B, 6-B.

DeGarmo, Book II. 77-120.

Third Term—(6-B).

DeGarmo, Book II. 73-119 reviewed thoroughly. Composition work was based on Scudder's Life of Washington. Outlines placed on charts and pupils wrote from these after hearing the story read but once. Much outside work done in figurative language, tense, voice of verb, adjective. Good results.

Sixth Grade—Section B.

First Term.

DeGarmo, Book II. 77-143.

Second Term—Class Now Sixth A, 6-A.

DeGarmo, Book II. 146-184.

Third Term—(6-A).

DeGarmo, Book II. 9-90. This review was taken by topics and all the composition work was based on new classics outside the book. The book used as a guide and the work selected to make the class more familiar with difficult points.

Sixth Grade—Section A, Division 2.  
First Term.

DeGarmo, Book II. Reviewed by use of summaries and by topics. Much supplementary work done. 1-168.

Second Term—Class Now Seventh, D 2.

DeGarmo, Book II. Finished and Brown and DeGarmo's Grammar, 1-47.

Third Term—D 2.

Brown and DeGarmo's Grammar. 48-118.

Sixth Grade—Section A, Division 1.  
First Term.

DeGarmo, Book II. Reviewed by summaries to 150. Finished and reviewed from page 150.

Second Term. D 1.

Brown and DeGarmo's Grammar. 11-62.

Third Term. D 1.

Brown and DeGarmo. Reviewed from 48 and extended to 130.

## Reading.

Three terms' work for each class designated, but the grade is changed at the end of the first term, or sometimes the grade and letter indicating the section are both changed. Numbers refer to pages.

Fifth Grade—Section Entering at the Opening of Spring Term.

Anderson's Stories having been started before entering the book was continued and finished.

Half the term on Short Stories of Our Shy Neighbors. 7, 22, 29, 30, 36, 40, 41, 50, 56, 79, 122, 129, 158, 92, 67, 108, 84, 98, 103, 114, 143, 168, 175, 164, 131, 135.

The following classes were in all year and the work of each is shown consecutively by terms.

Fifth Grade—Section G.  
First Term.

Short Stories of Our Shy Neighbors. 7, 30, 36, 40, 50, 61, 67, 98, 103, 108, 114, 122, 129, 131, 135, 138, 143, 149, 180-214.

## Second Term.

(Class now becomes section A of fifth grade.)

Anderson's Stories. 32, 13, 97, 48, 79, 87, 92.

## Third Term.

American History Stories, Book III., (Mara Pratt.)

Entire book. Much of the work correlated with their geography.

## Fifth Grade—Section A.

## First Term.

Heart of Oak, Book III. 1-109.

Second Term—(Class Now Sixth, Section C, 6-C.)

Heart of Oak, Book III. Six chapters of the Story of Ulysses were read and at Christmas time, A Visit from St. Nicholas, 12, and A Christmas Carol, 144.

## Third Term. 6-C.

Stories and Poems for Children, Thaxter.

Selections such as belong to the spring season excepting enough of a general nature to prevent monotony. 114, 155, 123, 196, 171, 122, 170, 197, 127, 168, 62, 210, 205, 144, 217, 230, 255, 242, 72, 251, 3, 132, 137, 201, 186, 243, 173, 151, 115, 163, 208, 97, 181.

## Sixth Grade—Section C.

## First Term.

Children's Hour. 11, 13, 50, 52, 142, 100, 75, 70, 48, 20, 187, and a few other short selections.

Second Term.—(Class Now 6-B).

Children's Hour. 55, 71, 39, 68, 104, 242, 119, 131, 78, 138, 38, 141.

## Third Term. (6-B).

Beginner's American History, Montgomery. First unit, 1 to 39. Class made maps showing the world at the time of Columbus and others tracing the discoveries and locating the settlements. Second unit, 39 to 68. Read Pilgrim Fathers in connection with this section and the teacher added stories relating to the period. Third unit, 68 to 91. A lesson on silk culture was given in connection with the study of the settlement of

Georgia. Time was given to the study of Franklin and what he did for Philadelphia, the teacher presenting a map showing the city in Franklin's time and at the present time.

Sixth Grade—Section B (6-B.)

First Term.

Grandfather's Chair. 1-66. Beginner's History, Montgomery. 1-80.

Second Term—(Class Now 6-A.)

Beginner's American History, Montgomery. 80-231.

Third Term—(6-A.)

The Land of Song, Book II. 42, 38, 13, 14, 15, 39, 180, 202, 40, 131, 179. In geography the class was studying England which with the season determined the early part of the term's reading. Scotland was the next geography study. The teacher told the story of the Lady of the Lake and read many passages from the poem to the class, using a map of Scotland prepared by herself to make the scene clear to the class. Children read in recitation time, 200, 216, 64. Review of the Life of Sir Walter the relating of the story and reading of the poem, Tam O'Shanter, by the teacher. Class then read 69, 153, 37. Sketch of Life of Burns given.

Sixth Grade—Section A, Division 2.

First Term.

Heart of Oak, Book IV. Vanity Fair. (Two weeks.)

Grandmother's Story and Other Poems. 80, 58, 29, 52, 54, 8, 51, 49, 70.

Second Term.

(Seventh Grade Now. D 2.)

Snow Bound, Tent on the Beach and Other Selections.

Five weeks: 243, 246, 231, 236, 239, 228. Seven weeks: Snow Bound.

Third Term. (D 2).

Heart of Oak, Book IV. 1-8, 64-80, 127-209, 216-217, 220-246, 269, with selections to the end of the book.

## Sixth Grade—Section A, Division 1.

## First Term.

Beginner's American History, Montgomery. 175 to end.  
(Two weeks.)

Heart of Oak, Book IV. 1-104, 211-224, omitting selections on 78 and 218.

## Second Term—(Now Seventh, D 1.)

Heart of Oak, Book IV. 109-118, 128-209, 224-294.

## Third Term. (D 1.)

Seven American Classics. 44-75, 87-114, 133-146, 169-218.

**Spelling.**

## Fifth Grade—Class Entering in the Spring.

Morse Speller. 30-42.

## Fifth Grade—Section B.

## First Term.

Morse Speller. 30-44.

Morse Speller. 44-55. Second Term. 5-A.

Third Term. 5-A. Reviewed 30-42.

First Term. 5-A. Morse. 44-55.

Second Term. 6-C. Selections from readers, geographies, arithmetics, and language, one subject being followed for a week at a time.

Third Term. 6-C. Morse. 56-70.

First Term. 6-C. Morse. 74-88.

Second Term. 6-B. With 6-C this term.

Third Term. 6-B. With 6-C again.

First Term. 6-B. Morse. 108-111. And selections from the Beginner's History.

Second Term. 6-A. With 6-C.

Third Term. 6-A. Same as 6-C.

First Term. 6-A. Selections from Carpenter's Asia.

Second Term. Seventh. D 2. Selections from reader, geography, arithmetic, and language. One week given to each subject each month.

Third Term. Seventh D 2 Rational Speller 63-77.

First Term. 6-A, D 1. Reed's Word Book. 1-69.

Second Term. Seventh D 1. Reed's Word Book. 69-93.

Third Term. Seventh D 1. Same as D 2.

## Drawing.

(Grades fifth and sixth, and a part of the seventh a short time.)

Second Term.

Sixth-A and Seventh-D 2

I. Picture study.

1. Foreground. 2. Background. 3. Middleground.

4. Matting.

Pictures used for study: Shepherds, Lark, Gleaners, and pictures from, "How to Enjoy Pictures."

II. An application of this work was made in drawing scenes from Snowbound, The Huskers and other poems from Whittier. Also from the works of Lucy Larcom. The Brook, by Tennyson. Washington's Home.

III. Grouping: Objects arranged so as to express thought and then the drawing of these. Stress upon the necessity of unity.

IV. Posing: Child posing and class drawing. Effect of lines emphasized.

Sixth-B and C, and Fifth-A.

Some attempt at correlation of reading and geography with the drawing. Also a study of standard pictures was made.

Ground covered.

An average of two drawings per week from the reading and geography subjects. Old Clock on the Stairs—Longfellow, and The Brook—Tennyson, were illustrated. A number of pictures representing bodies of water, mountains, hills, streams, valleys, &c., were made.

The last month was given to composition. A black water color wash and brush were used. Children posed for others to draw. Class had in mind a shadow thrown upon a white curtain.

Picture study:

Picture before the pupils and viewed from its artistic values, proportion, grouping of objects, massing of colors, and light and shade. Other points incidentally taken up. The story of the pictures was told and a short sketch of the artist given.

Pictures studied: Baby Stuart, The Madonna of the Chair,

Spring, The Shepherdess with Sheep, The Lark, The Gleaners, The Sistine Madonna.

### Third Term.

Entire school of fifth and sixth grades divided into two sections this term and thirty minutes to each section each day Better results in this way. The work in illustrating carried forward. Picture study was begun about the fourth or fifth week.

#### Selection illustrated:

Twinkle, Twinkle Little Star. The Swallow and I, The Rainy Day, The Ship of State, The Brook in the Hollow, The Old Oaken Bucket, The Merry Brown Thrush.

A drawing of Lincoln's birthplace, outside sketches of neighborhood barns, a waste basket, bird's nest, &c., comprise the studies for the other lessons.

#### Pictures studied:

The Meeting—Bashkirtseff, Return to the Farm—Troyon, The Hay Harvest—Jules Bastien—Lepage, Landscape.

## Music.

### Third Term.

All the sections of the sixth grade in one class and all the fifth in the other.

#### Sixth Grades.

##### Book: Choice Songs—Fullerton.

Attention to the keys in flats as the class had sharps in the previous term. Reviewed different keys near the close of the term.

Teacher told the class of the composer McDowell and reviewed with them the life of Schubert that was given the term before. Also gave them an account of the May Festival at Mt. Vernon as a means of creating interest in musical affairs.

#### Class of songs used:

##### 1. Of Children's Play.

The Shell, The Tomtit, Soldier's Song, Sandman, &c.

##### 2. Spring and Summer.

Away, Among the Flowers, In the Month of May, In Summer, Birdie's Burial, &c.

##### 3. Hunting Songs.

The Hunter, Hunter's Song.

**4. Patriotic Songs.**

America, Iowa, and Iowa Beautiful Land.

Fifth Grades.

Book same as other grades.

**Theory.**

1. Reasons for sharps. 2. Nature of minor scale and why so called.

**Drills.**

Natural Music Chart.

Numbers: 1, 3, 5, 4, 6, 8.

**Selections used in class.**

Little Maud with Cheeks so Fair; The Little Brother; Soon Winter Will Be Over; Two Part Round; Dancing Song; Holy Night; Silent Night; The Herd Boy's Song; The Guardian Angel; O Come, Come Away; Sea Horses; The King; Old Barbosa; Sleep, Baby Sleep; Wake Up Little Maud.

## **Penmanship.**

**All Grades.**

Position, pen-holding, exercises for freedom of movement and skill in use of hand and arm.

## **General.**

Physiology is studied at some time in the year in class by each pupil and from text book. By means of general exercises the subject is kept in view at other times.

Much work has been done in general exercises in the study of current topics and in committing extracts from the best grades of literature.

The pupils above the seventh grades are divided into three classes known as C, B, A, the last of these designating the highest class in the school. The work of these classes is indicated in the class group by terms instead of a subject arrangement as was done with the lower grades.

### **Class C.**

**First Term.**

Arithmetic: Hall, Werner, Book III. 7-144.

History: Leading Facts in American History, Montgom-

ery. 1-139. This was supplemented with the Story of the Thirteen Colonies for the same period.

Grammar: Southworth and Goddard. Reviewed 126-155.  
To 227.

Geography: Werner's Grammar School. 175-259.

Latin: First Latin Book, C and D. Two sections in this work.

Reviewed 1-64. To 94.

Reviewed 1-42. To 61.

German: Conversational and the Eclectic Primer.

Spelling: Reed's Word Book. 1-70.

### Second Term.

Arithmetic: Werner, Book III. 144-240. Second section 231.

History: Montgomery, Leading Facts. 149-265.

Story Thirteen Colonies. 214-326.

Story of Great Republic. 13-147.

Grammar: Southworth and Goddard. 231-300. Finished.

Geography: Werner's Grammar School. 259-351. Finished.

Latin: First Latin Book. 94-134.

First Latin Book. 61-120.

German: Primer finished. Erstes Lesebuch. 1-27.

Spelling: Reed's Word Book. Lessons 70-135.

### Third Term.

Arithmetic: Werner, Book III. 231-256. Rich's Practical 1-82. Second section 1-63.

History: Montgomery's Leading Facts. 256 to close. Story of the Great Republic. 148 to close. Library work also.

English: Buehler's Exercises. Completed.

Physiology: Baldwin's Essentials. Completed.

Latin: First Latin Book. 134-190.

First Latin Book. 120-172.

German: Erstes Lesebuch. 27-84 in reading. 85-102 in grammar exercises with outside supplementary matter.

Spelling: New Business Speller. Lesson 1-25.

## Class B.

## First Term.

## Arithmetic:

Wentworth's Grammar School. 199-247.

English: American Classics, Longfellow and Whittier (Except Songs of Labor).

Latin: First Latin Book. Reviewed 1-110. To 125.

Physiology: Overton's Advanced. 9-192.

History: Story of the Romans, Guerber. Completed.

German: With Class C.

## Second Term.

Arithmetic: Wentworth's Grammar School. 247-292. Corresponding parts of Rich's Practical.

English: Classics. Selections from Whittier. 49-73 supplemented with other poems from Whittier. Selections from Lowell. 1-92.

Physiology: Overton's Advanced. 192-400.

History: Story of the English, Guerber. Completed.

Latin: First Latin Book. 125-193.

German: With other class as in previous term.

## Third Term.

Algebra: Wentworth's New School. 1-85.

English: Shakespeare's Julius Caesar. Latin: Gradatim. 1-62.

U. S. History: Gordy, Entire book and supplemented with library work.

German: Same as "C" class.

Spelling: Same as "C" class.

## Class A.

## First Term.

Algebra: Wentworth's New School. Reviewed 1-107. To 174.

English: Composition and Rhetoric, Mead. 9-120 and corresponding exercises.

General History: Myers. 1-222.

Civics: Seerley and Parish. 9-136. Latin: (1). Junior Latin Book. Caesar.

Books I. and II. (2): Gradatim. 111-125 and Junior Latin Book. To 57.

German: Same as "B" class.

### Second Term.

Algebra: Wentworth. 169-254.

English: Composition and Rhetoric, Mead. 120-192 and the required exercises.

General History: Myers. 222-512.

Civics: Seerley and Parish. 136-281.

Latin: (1). Junior Latin Book. Completed.

(2). Junior Latin Book. Completed Viri Romae Life of Caesar. Caesar Book II. and Book I. to Paragraph 7.

German: Same as "B" class.

### Third Term.

Algebra: Wentworth. 251-316, 352-364.

English: Brief history of periods of English Literature from Shakespeare to present with critical study of typical selections. Also study of selections from Whittier.

General History: Myers. 513 to close.

Civics: Same text as before. 281 to end with supplementary work on the constitution, comparisons of state and national government.

Latin: (1). Cicero. Orations against Cataline, 1, 2, and to section 9 in the third. One lesson per week in Latin prose.

(2). Junior Latin Book. Caesar, Book I. finished. Selections from Viri Romae and one lesson per week in Latin prose.

German: Same as "B" class.

Music: Note reading, songs and some chorus work. All pupils take music.

Penmanship: Drills for all.

## 116.—PREPARATORY.

### 1. List of Text Books Used in the Preparatory School.

Arithmetic: The New Practical.—Rich.

Reader: Masterpieces of American Literature.

Geography: Frye's Complete.

Physiology: Physiology for High Schools.—Macy.

Grammar: Elements of Composition and Grammar—Southworth and Goddard.

United States History: Leading Facts of American History—Montgomery.

Speller: Morse.

## 2.—Brief Outline of Work by Terms.

The pages refer to the corresponding text named above. Where groups of pages are given, as in reading, the work is to be taken in the order suggested by the order in which the pages are put into the list.

### First Term Class.

Arithmetic: 13-67. Reading: 1-31, 65-80, 87-117, 127-156.

Geography: 1-73. Grammar: 77-126, 15-36. Spelling: 65-99, with the review exercises indicated to go with these pages.

### Second Term Class.

Arithmetic: 68-132. Reading: 366-462. (Six weeks). 117-126, 37-40, 46-59.

Geography: 75-175. Iowa Geography with a review of North America.

Grammar: 126-218. History: 1-194.

### Third Term Class.

Arithmetic: 133-222. Reading: 270-284, 285-309, 80-83, 217-237, 156-160, 238-270.

Physiology: Entire book. Grammar: 219-300. History: 195-405.

Note.—The order in which the topics are named for each class is the order of the program of recitations beginning with the first period in the morning and continuing until 12:15.





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